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ARMY DUGWAY PROVING GROUND UTAH

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DUST/DEBRIS TEST CONDUCTED AT FORT SILL, OKLAHOMA BY DUGWAY PRO--ETC(U)

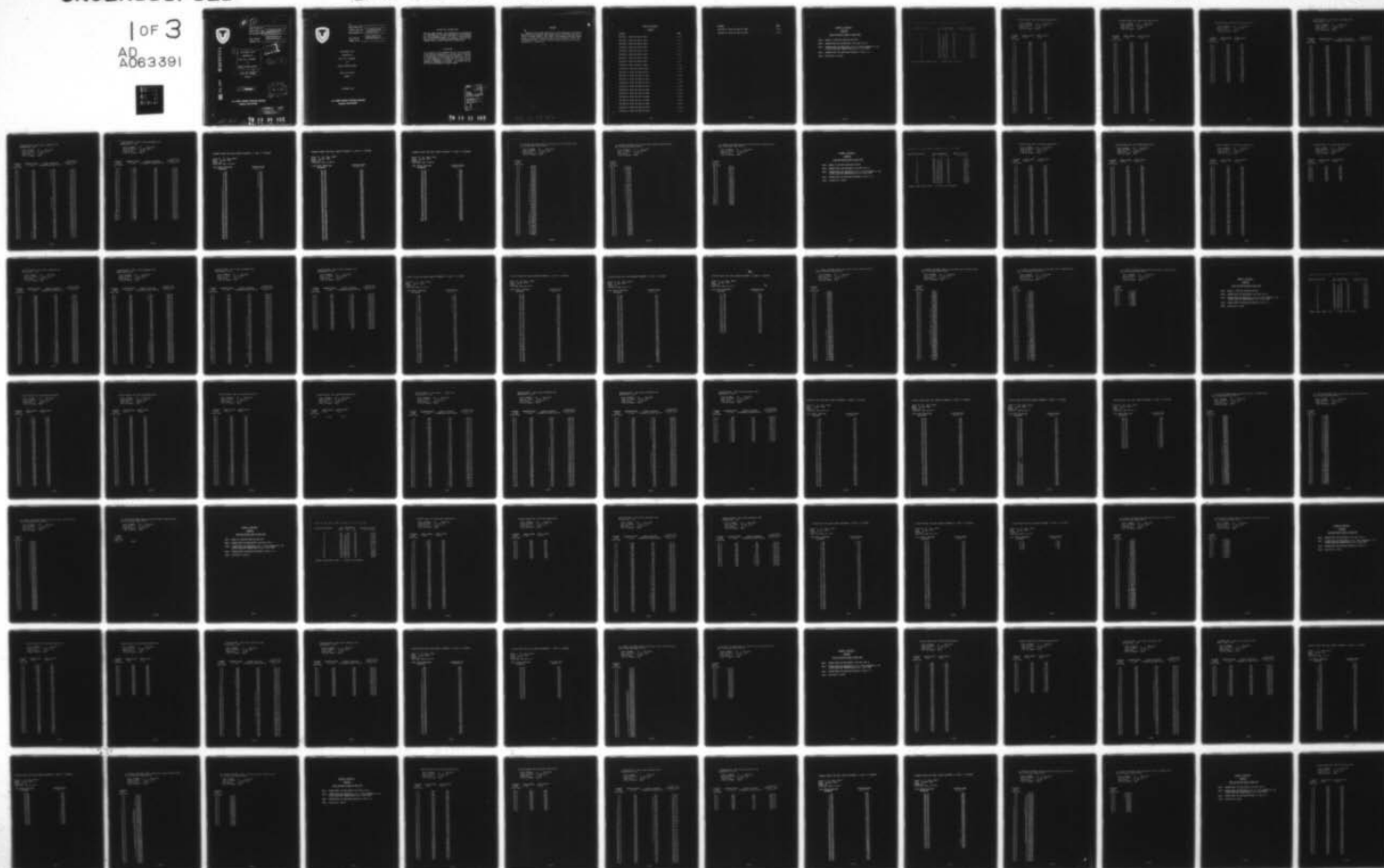
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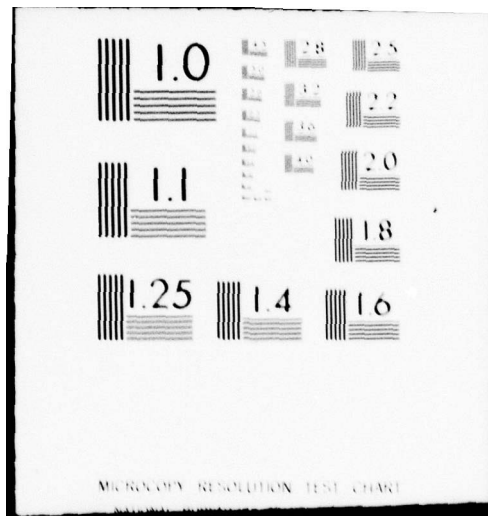
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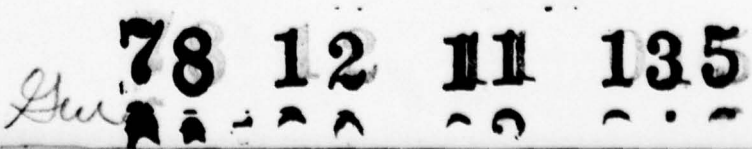
DPG-FR-78-313

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RDTE Project No. _____
TECOM Project No. 7-CO-RD8-DPI-005
DPG Document No. DPG-FR-78-313
Test Sponsor Program Manager for
Smoke/Obscurants
TRADOC AC No. _____

DUST/DEBRIS TEST
CONDUCTED AT
FORT SILL, OKLAHOMA
BY
DUGWAY PROVING GROUND

FINAL TEST REPORT
VOLUME 2

SEPTEMBER 1978

U.S. ARMY DUGWAY PROVING GROUND
Dugway, Utah 84022

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PREFACE

↓
Because of the large quantities of data contained in the Smoke/
Obscurant and Dust/Debris test reports and to facilitate handling of
these voluminous reports, the reports are separated into two volumes.
Volume 1 contains the narrative description, essential tabular data
and graphical data. Volume 2 contains tabular data that are shown
graphically in volume 1. ↙

TABLE OF CONTENTS

VOLUME 2

<u>Section</u>	<u>PAGE</u>
SECTION 1, TRIAL DPI-005-P1 DATA	2-1-1
SECTION 2, TRIAL DPI-005-P2 DATA	2-2-1
SECTION 3, TRIAL DPI-005-P3 DATA	2-3-1
SECTION 4, TRIAL DPI-005-P4 DATA	2-4-1
SECTION 5, TRIAL DPI-005-T3 DATA	2-5-1
SECTION 6, TRIAL DPI-005-T4 DATA	2-6-1
SECTION 7, TRIAL DPI-005-T5 DATA	2-7-1
SECTION 8, TRIAL DPI-005-T6 DATA	2-8-1
SECTION 9, TRIAL DPI-005-T7 DATA	2-9-1
SECTION 10, TRIAL DPI-005-T8 DATA	2-10-1
SECTION 11, TRIAL DPI-005-T9 DATA	2-11-1
SECTION 12, TRIAL DPI-005-T10 DATA	2-12-1
SECTION 13, TRIAL DPI-005-T11 DATA	2-13-1
SECTION 14, TRIAL DPI-005-T12 DATA	2-14-1
SECTION 15, TRIAL DPI-005-T13 DATA	2-15-1
SECTION 16, TRIAL DPI-005-T14 DATA	2-16-1
SECTION 17, TRIAL DPI-005-T15 DATA	2-17-1
SECTION 18, TRIAL DPI-005-T16 DATA	2-18-1
SECTION 19, TRIAL DPI-005-T17 DATA	2-19-1
SECTION 20, TRIAL DPI-005-T18 DATA	2-20-1
SECTION 21, TRIAL DPI-005-T19 DATA	2-21-1
SECTION 22, TRIAL DPI-005-T20 DATA	2-22-1

<u>Section</u>	<u>PAGE</u>
SECTION 23, TRIAL DPI-005-T21 DATA	2-23-1
SECTION 24, TRIAL DPI-005-T22 DATA	2-24-1

VOLUME 2, SECTION 1

CONTENTS

TRIAL DPI-005-P1 (DUST) 14 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL P1. FT. SILL TESTS, 14 MAY 78, 14:48:00. DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (CM.MIN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.00000
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.00050
6	.00	75.00	.00	.01583
7	.00	90.00	.00	.05067
8	.00	105.00	.00	.08233
9	.00	120.00	.00	.03650
10	.00	135.00	.00	.00050
11	.00	150.00	.00	.00000
12	.00	165.00	.00	.00000
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00000
15	.00	210.00	.00	.00000

DOSAGE ALONG SIGHT LINE= 2.85500 (CM.MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P1 (DP1-005)

DATE OF TRIAL...14 MAY 1978

FIRE-TIME.....14:48: 0

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.003	1.031
2.0	.988	1.001
3.0	.996	.975
4.0	.996	1.004
5.0	1.014	.998
6.0	.996	1.014
7.0	1.004	1.030
8.0	.991	1.011
9.0	.994	.979
10.0	.927	.920
11.0	.875	.826
12.0	.645	.515
13.0	.740	.552
14.0	.793	.646
15.0	.869	.749
16.0	.839	.732
17.0	.779	.678
18.0	.794	.718
19.0	.768	.684
20.0	.696	.557
21.0	.483	.317
22.0	.854	.770
23.0	.904	.723
24.0	.916	.895
25.0	.862	.831
26.0	.885	.885
27.0	.849	.812
28.0	.720	.627
29.0	.563	.443
30.0	.555	.470
31.0	.606	.498
32.0	.624	.497
33.0	.442	.308
34.0	.215	.154
35.0	.195	.109
36.0	.341	.241
37.0	.329	.193
38.0	.404	.293
39.0	.408	.251
40.0	.356	.251
41.0	.330	.200

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....P1 (DP1-005)

DATE OF TRIAL...14 MAY 1978

FIRE-TIME.....14:48: 0

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.566	.416
43.0	.652	.512
44.0	.728	.649
45.0	.802	.760
46.0	.818	.804
47.0	.861	.843
48.0	.806	.781
49.0	.835	.831
50.0	.800	.744
51.0	.879	.852
52.0	.785	.717
53.0	.573	.532
54.0	.516	.394
55.0	.305	.233
56.0	.327	.224
57.0	.485	.395
58.0	.563	.384
59.0	.723	.587
60.0	.794	.713
61.0	.812	.772
62.0	.784	.719
63.0	.799	.763
64.0	.837	.814
65.0	.870	.833
66.0	.898	.889
67.0	.877	.848
68.0	.860	.825
69.0	.870	.821
70.0	.848	.816
71.0	.936	.921
72.0	.959	.960
73.0	.979	.978
74.0	.960	.975
75.0	.979	.982
76.0	.974	.970
77.0	.978	.986
78.0	.992	.990
79.0	.972	1.003
80.0	.991	.980
81.0	.980	.965
82.0	.992	.979

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P1 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....14:48: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
83.0	.994	.992
84.0	.991	1.013
85.0	.993	.979
86.0	.999	.989
87.0	.988	.993
88.0	.985	.978
89.0	.989	.976
90.0	1.009	1.013
91.0	.994	.982
92.0	1.002	.979
93.0	.989	.992
94.0	.994	1.003
95.0	.997	.984
96.0	.994	.998
97.0	.997	.973
98.0	1.000	.980
99.0	1.000	.980
100.0	.993	1.004
101.0	.993	1.004
102.0	.997	.995
103.0	.995	1.011
104.0	.995	1.011
105.0	1.003	.991

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P1 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....14:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.3	1.012	.000	.10E+01
2.2	.997	.012	.10E+01
3.1	1.005	.000	.10E+01
4.1	1.023	.000	.10E+01
5.0	.993	.043	.99E+00
5.9	.986	.058	.98E+00
6.8	1.001	.000	.10E+01
7.6	.990	.042	.99E+00
8.5	.997	.012	.10E+01
9.3	.986	.058	.98E+00
10.3	.971	.119	.96E+00
11.1	.848	.608	.81E+00
12.0	.795	.806	.75E+00
12.9	.530	1.876	.45E+00
13.7	.530	1.845	.45E+00
14.6	.508	1.937	.43E+00
15.6	.564	1.692	.49E+00
16.4	.691	1.172	.63E+00
17.4	.650	1.340	.58E+00
18.3	.702	1.110	.64E+00
19.2	.635	1.386	.57E+00
20.0	.541	1.784	.46E+00
20.8	.403	2.349	.32E+00
21.9	.366	2.502	.28E+00
22.8	.724	1.034	.67E+00
23.7	.650	1.356	.58E+00
24.7	.915	.270	.89E+00
25.6	.851	.546	.82E+00
26.6	.848	.561	.81E+00
27.5	.810	.714	.77E+00
28.4	.713	1.111	.66E+00
29.3	.504	1.968	.42E+00
30.3	.500	1.983	.42E+00
31.2	.583	1.631	.51E+00
32.1	.560	1.723	.48E+00
32.9	.497	1.998	.42E+00
34.0	.437	2.259	.36E+00
34.8	.258	2.992	.18E+00
35.9	.179	3.314	.12E+00
36.8	.172	3.329	.11E+00
37.4	.153	3.405	.96E-01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P1 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....14:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
38.6	.176	3.298	.11E+00
39.3	.254	2.977	.18E+00
40.5	.224	3.099	.15E+00
41.3	.164	3.343	.10E+00
42.2	.220	3.099	.15E+00
43.1	.400	2.365	.32E+00
44.3	.609	1.524	.54E+00
45.1	.639	1.402	.57E+00
46.1	.713	1.096	.66E+00
47.0	.758	.912	.71E+00
47.9	.833	.607	.80E+00
48.8	.799	.760	.76E+00
49.8	.851	.546	.82E+00
50.6	.784	.821	.74E+00
51.6	.893	.378	.87E+00
52.6	.792	.790	.75E+00
53.4	.598	1.585	.53E+00
54.3	.359	2.564	.28E+00
55.0	.291	2.824	.21E+00
56.1	.284	2.839	.21E+00
57.0	.575	1.646	.50E+00
58.0	.471	2.074	.39E+00
59.1	.534	1.814	.46E+00
60.0	.721	1.050	.66E+00
60.9	.754	.928	.70E+00
61.8	.859	.499	.83E+00
62.7	.833	.622	.80E+00
63.7	.893	.378	.87E+00
64.5	.956	.133	.95E+00
65.5	.934	.225	.92E+00
66.3	.978	.057	.97E+00
67.3	.922	.286	.90E+00
68.3	.945	.226	.93E+00
69.2	.885	.471	.86E+00
70.2	.885	.455	.86E+00
71.0	.922	.286	.90E+00
72.0	1.001	.000	.10E+01
73.0	1.031	.000	.10E+01
73.9	1.087	.000	.11E+01
74.9	1.068	.000	.11E+01
75.8	1.090	.000	.11E+01

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P1 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....14:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
76.7	1.094	.000	.11E+01
77.6	1.076	.000	.11E+01
78.7	1.120	.000	.12E+01
79.6	1.132	.000	.12E+01
80.5	1.113	.000	.11E+01
81.3	1.117	.000	.11E+01
82.4	1.102	.000	.11E+01
83.3	1.154	.000	.12E+01
84.2	1.143	.000	.12E+01
85.2	1.154	.000	.12E+01
86.1	1.146	.000	.12E+01
87.0	1.169	.000	.12E+01
88.0	1.154	.000	.12E+01
89.0	1.161	.000	.12E+01
89.9	1.184	.000	.12E+01
90.8	1.221	.000	.13E+01
91.7	1.217	.000	.13E+01
92.6	1.184	.000	.12E+01
93.5	1.221	.000	.13E+01
94.5	1.195	.000	.12E+01
95.4	1.217	.000	.13E+01
96.3	1.217	.000	.13E+01
97.3	1.244	.000	.13E+01
98.1	1.262	.000	.13E+01
98.8	1.255	.000	.13E+01
99.4	1.259	.000	.13E+01
100.4	1.292	.000	.14E+01
100.9	1.296	.000	.14E+01
101.8	1.292	.000	.14E+01
102.7	1.273	.000	.14E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P1, FT. SILL TESTS
 DATE: 14 MAY 1978
 SMOKE: DT
 FUNCTION TIME 14:48:00

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
1.40	1.001
2.30	1.001
3.07	1.001
4.07	1.001
4.97	1.001
5.86	1.001
6.68	1.000
7.64	1.000
8.43	1.000
9.38	1.000
10.28	.999
11.15	.997
12.07	.863
12.92	.701
13.77	.604
14.65	.619
15.60	.597
16.42	.840
17.39	.716
18.16	.846
19.19	.691
19.98	.582
20.89	.498
21.79	.466
22.84	.838
23.69	.778
24.63	.992
25.50	.989
26.56	.986
27.44	.918
28.33	.796
29.23	.603
30.29	.607
31.21	.613
32.03	.652
32.93	.616
33.89	.506
34.84	.296
35.76	.211
36.79	.196

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P1, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 14:48:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

37.59	.155
38.55	.223
39.44	.281
40.49	.254
41.28	.203
42.21	.295
43.15	.485
44.22	.891
45.13	.861
46.09	.937
46.88	.922
47.87	.992
48.72	.988
49.77	.995
50.69	.910
51.54	.990
52.54	.882
53.39	.713
54.33	.484
55.20	.383
56.15	.356
57.07	.725
58.01	.593
59.05	.614
59.92	.984
60.85	.896
61.78	.991
62.76	.994
63.59	.995
64.58	.996
65.50	.996
66.43	.996
67.36	.996
68.29	.996
69.22	.996
70.16	.996
71.09	.997
72.03	.997
72.98	.998
73.91	.998

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P1, FT. SILL TESTS
DATE: 14 MAY 1978
SMOKE: DT
FUNCTION TIME 14:48:00

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
74.86	.998
75.82	.998
76.76	.999
77.70	1.000
78.64	.999
79.57	.999
80.50	.999
81.43	.999
82.36	.999
83.29	.999
84.22	.998
85.15	.999
86.10	.999
87.04	.999
87.97	.999
88.91	.999
89.86	.999
90.80	.998
91.73	.999
92.65	.999
93.57	.999
94.48	.998
95.41	.998
96.33	.998
97.26	.998
98.14	.989
98.77	.989
99.57	.998
101.79	.998
102.70	.998

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P1 (DP1-005)

DATE OF TRIAL...14 MAY 1978

FIRE-TIME.....14:48: 0

TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.11718
4.0	.00000
5.0	.00750
6.0	.00000
7.0	.00000
8.0	.00000
9.0	.09586
10.0	.37971
11.0	.87280
12.0	3.03462
13.0	1.95347
14.0	1.99566
15.0	1.32083
16.0	1.42199
17.0	1.77783
18.0	1.51237
19.0	1.73173
20.0	2.67236
21.0	5.24168
22.0	1.19420
23.0	1.48182
24.0	.50742
25.0	.84504
26.0	.55625
27.0	.94835
28.0	2.13326
29.0	3.71480
30.0	3.44735
31.0	3.18062
32.0	3.19252
33.0	5.37147
34.0	8.55821
35.0	10.11168
36.0	6.49895
37.0	7.51433
38.0	5.61181
39.0	6.30747
40.0	6.30668
41.0	7.35892

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P1 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....14:48: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	4.00248
43.0	3.05635
44.0	1.97219
45.0	1.25448
46.0	.99485
47.0	.77947
48.0	1.12687
49.0	.84542
50.0	1.35125
51.0	.73113
52.0	1.51867
53.0	2.88203
54.0	4.25821
55.0	6.65461
56.0	6.82948
57.0	4.24144
58.0	4.37012
59.0	2.43075
60.0	1.54715
61.0	1.18270
62.0	1.50578
63.0	1.23311
64.0	.93961
65.0	.83313
66.0	.53764
67.0	.75257
68.0	.87854
69.0	.90013
70.0	.92730
71.0	.37564
72.0	.18493
73.0	.09999
74.0	.11467
75.0	.08287
76.0	.13708
77.0	.06435
78.0	.04384
79.0	.00000
80.0	.09374
81.0	.16139
82.0	.09475

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P1 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....14:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	
83.0	.03697
84.0	.00000
85.0	.09616
86.0	.05176
87.0	.03120
88.0	.10171
89.0	.10971
90.0	.00000
91.0	.08402
92.0	.09713
93.0	.03487
94.0	.00000
95.0	.07143
96.0	.00780
97.0	.12631
98.0	.09219
99.0	.09219
100.0	.00000
101.0	.00000
102.0	.02472
103.0	.00000
104.0	.00000
105.0	.04095

VOLUME 2, SECTION 2

CONTENTS

TRIAL DPI-005-P2 (DUST) 14 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL P2. FT. SILL TESTS, 14 MAY 78, 15:21:30, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM. MIN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.00000
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.01800
6	.00	75.00	.00	.03533
7	.00	90.00	.00	.05417
8	.00	105.00	.00	.07017
9	.00	120.00	.00	.05550
10	.00	135.00	.00	.05533
11	.00	150.00	.00	.03367
12	.00	165.00	.00	.03600
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00000
15	.00	210.00	.00	.00000

DOSAGE ALONG SIGHT LINE= 5.37250 (GM. MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....P2 (DP1-006)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....15:21:30
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.003	.989
2.0	1.000	1.011
3.0	1.007	1.003
4.0	.990	.982
5.0	1.001	1.000
6.0	.990	.974
7.0	1.008	1.001
8.0	.956	.941
9.0	.993	.997
10.0	.972	.947
11.0	.951	.897
12.0	.997	.980
13.0	.970	.953
14.0	.982	.960
15.0	.993	.986
16.0	.994	.985
17.0	.955	.938
18.0	.971	.970
19.0	.926	.908
20.0	.984	.961
21.0	.982	1.000
22.0	.932	.890
23.0	.874	.833
24.0	.778	.685
25.0	.777	.669
26.0	.787	.695
27.0	.854	.780
28.0	.841	.741
29.0	.866	.827
30.0	.826	.727
31.0	.881	.847
32.0	.821	.769
33.0	.722	.608
34.0	.645	.501
35.0	.691	.544
36.0	.817	.744
37.0	.726	.624
38.0	.678	.549
39.0	.456	.311
40.0	.590	.452
41.0	.795	.650

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P2 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....15:21:30
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.939	.959
43.0	.917	.948
44.0	.891	.907
45.0	.905	.912
46.0	.912	.920
47.0	.926	.922
48.0	.915	.895
49.0	.868	.825
50.0	.960	.946
51.0	.951	.950
52.0	.822	.780
53.0	.829	.771
54.0	.845	.770
55.0	.874	.793
56.0	.875	.844
57.0	.852	.791
58.0	.883	.825
59.0	.856	.810
60.0	.873	.804
61.0	.846	.828
62.0	.701	.610
63.0	.658	.570
64.0	.503	.374
65.0	.374	.272
66.0	.328	.183
67.0	.408	.279
68.0	.580	.460
69.0	.516	.355
70.0	.640	.496
71.0	.715	.589
72.0	.793	.725
73.0	.779	.705
74.0	.853	.803
75.0	.900	.912
76.0	.906	.939
77.0	.914	.910
78.0	.882	.883
79.0	.894	.868
80.0	.842	.819
81.0	.851	.792
82.0	.929	.919

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....P2 (DP1-005)

DATE OF TRIAL...14 MAY 1978

FIRE-TIME.....15:21:30

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
83.0	.929	.916
84.0	.895	.859
85.0	.856	.795
86.0	.863	.824
87.0	.776	.699
88.0	.778	.699
89.0	.766	.674
90.0	.730	.619
91.0	.648	.544
92.0	.648	.544
93.0	.546	.443
94.0	.619	.525
95.0	.619	.525
96.0	.626	.500
97.0	.496	.397
98.0	.612	.473
99.0	.685	.574
100.0	.786	.734
101.0	.811	.732
102.0	.841	.821
103.0	.798	.753
104.0	.852	.806
105.0	.879	.888
106.0	.851	.819
107.0	.748	.673
108.0	.676	.547
109.0	.884	.838
110.0	.914	.931
111.0	.906	.869
112.0	.864	.848
113.0	.797	.740
114.0	.757	.704
115.0	.668	.589
116.0	.508	.412
117.0	.516	.432
118.0	.384	.281
119.0	.362	.250
120.0	.327	.235
121.0	.325	.199
122.0	.251	.156
123.0	.452	.322

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P2 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....15:21:30
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
124.0	.456	.346
125.0	.523	.382
126.0	.606	.503
127.0	.683	.601
128.0	.753	.679
129.0	.798	.766
130.0	.863	.884
131.0	.836	.847
132.0	.834	.825

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.2	1.014	.000	.10E+01
2.0	.990	.034	.99E+00
3.0	1.005	.000	.10E+01
3.9	1.005	.000	.10E+01
4.9	.983	.079	.98E+00
5.7	1.007	.000	.10E+01
6.7	.983	.064	.98E+00
7.5	.962	.152	.95E+00
8.5	.983	.064	.98E+00
9.4	.990	.018	.99E+00
10.3	.917	.323	.90E+00
11.2	.886	.435	.86E+00
12.1	.943	.199	.93E+00
13.0	.969	.091	.96E+00
13.9	.969	.107	.96E+00
14.9	.986	.054	.98E+00
15.7	.993	.024	.99E+00
16.6	.969	.122	.96E+00
17.6	.955	.181	.94E+00
18.4	.962	.152	.95E+00
19.4	.893	.421	.87E+00
20.3	.943	.215	.93E+00
21.2	.967	.101	.96E+00
22.1	.917	.307	.90E+00
23.0	.924	.262	.91E+00
23.8	.768	.911	.72E+00
24.9	.697	1.190	.64E+00
25.6	.706	1.151	.65E+00
26.7	.744	.993	.69E+00
27.6	.758	.934	.71E+00
28.5	.744	.978	.69E+00
29.3	.810	.703	.77E+00
30.2	.834	.620	.80E+00
31.2	.730	1.037	.67E+00
32.2	.829	.624	.79E+00
33.0	.723	1.066	.67E+00
33.9	.640	1.395	.57E+00
34.9	.498	1.968	.42E+00
35.8	.519	1.864	.44E+00
36.7	.666	1.255	.60E+00
37.4	.557	1.723	.48E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
38.5	.561	1.703	.49E+00
39.2	.367	2.493	.29E+00
40.3	.374	2.464	.29E+00
41.1	.528	1.825	.45E+00
42.1	.732	.996	.68E+00
43.1	.898	.308	.87E+00
43.8	.879	.402	.85E+00
44.9	.869	.457	.84E+00
45.7	.888	.394	.86E+00
46.6	.905	.325	.88E+00
47.6	.898	.355	.87E+00
48.5	.867	.482	.84E+00
49.5	.820	.679	.78E+00
50.4	.907	.315	.89E+00
51.3	.943	.168	.93E+00
52.1	.867	.482	.84E+00
53.1	.765	.889	.72E+00
54.1	.770	.854	.72E+00
55.0	.777	.825	.73E+00
55.8	.808	.681	.77E+00
56.8	.768	.848	.72E+00
57.6	.791	.750	.75E+00
58.5	.801	.711	.76E+00
59.5	.853	.510	.82E+00
60.5	.789	.775	.74E+00
61.4	.862	.471	.83E+00
62.2	.758	.919	.71E+00
63.2	.635	1.414	.57E+00
63.9	.597	1.571	.52E+00
64.9	.441	2.204	.36E+00
65.7	.294	2.798	.22E+00
66.7	.237	3.018	.17E+00
67.7	.251	2.943	.18E+00
68.7	.367	2.462	.29E+00
69.6	.346	2.566	.27E+00
70.4	.543	1.750	.47E+00
71.4	.505	1.923	.43E+00
72.3	.531	1.815	.45E+00
73.0	.621	1.442	.55E+00
74.1	.640	1.379	.57E+00
75.0	.768	.848	.72E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
75.9	.869	.441	.84E+00
76.8	.910	.290	.89E+00
77.8	.893	.359	.87E+00
78.6	.855	.516	.82E+00
79.5	.855	.516	.82E+00
80.4	.862	.486	.83E+00
81.2	.765	.905	.72E+00
82.3	.820	.679	.78E+00
83.2	.943	.168	.93E+00
84.2	.964	.095	.96E+00
85.1	.896	.380	.87E+00
86.0	.869	.473	.84E+00
86.7	.805	.738	.76E+00
87.7	.732	1.027	.68E+00
88.7	.720	1.076	.66E+00
89.3	.678	1.253	.61E+00
90.2	.687	1.214	.63E+00
90.9	.652	1.345	.59E+00
91.4	.559	1.729	.48E+00
92.2	.512	1.909	.43E+00
93.2	.443	2.179	.36E+00
94.0	.429	2.222	.35E+00
96.0	.476	2.026	.40E+00
96.9	.486	2.002	.41E+00
97.6	.301	2.753	.22E+00
98.8	.370	2.468	.29E+00
99.7	.488	1.976	.41E+00
100.5	.692	1.131	.63E+00
101.5	.659	1.269	.59E+00
102.3	.699	1.102	.64E+00
103.1	.727	1.000	.67E+00
104.2	.573	1.654	.50E+00
105.0	.881	.377	.85E+00
106.0	.877	.412	.85E+00
106.9	.768	.864	.72E+00
107.6	.479	2.063	.40E+00
108.7	.467	2.096	.39E+00
109.6	.685	1.192	.62E+00
110.5	.855	.500	.82E+00
111.6	.884	.398	.86E+00
12.5	.810	.703	.77E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
113.4	.699	1.164	.64E+00
114.1	.663	1.296	.60E+00
115.0	.571	1.664	.50E+00
116.0	.412	2.307	.33E+00
116.9	.467	2.081	.39E+00
117.8	.396	2.360	.31E+00
118.7	.294	2.767	.22E+00
119.7	.268	2.859	.19E+00
120.6	.199	3.114	.13E+00
121.6	.246	2.932	.17E+00
122.4	.173	3.236	.11E+00
123.5	.280	2.794	.20E+00
124.4	.377	2.407	.30E+00
125.3	.334	2.600	.25E+00
126.2	.398	2.334	.32E+00
127.1	.495	1.947	.42E+00
128.0	.585	1.589	.51E+00
128.9	.758	.888	.71E+00
129.8	.768	.864	.73E+00
130.8	.815	.683	.77E+00
131.6	.851	.551	.82E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P2. FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:21:30

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.09	.978
2.09	1.041
3.04	1.035
3.81	1.032
4.78	.979
5.71	1.001
6.57	1.079
7.58	1.019
8.45	.978
9.29	1.001
10.19	.919
11.17	.944
12.00	.981
12.94	.999
13.96	.996
14.74	.941
15.68	.975
16.62	.980
17.55	.971
18.38	.969
19.39	.891
20.32	.935
21.12	1.001
22.00	.930
23.02	.935
23.82	.819
24.73	.741
25.70	.712
26.67	.747
27.45	.780
28.48	.785
29.36	.838
30.30	.833
31.14	.752
32.08	.791
32.92	.718
33.87	.647
34.87	.506
35.71	.540
36.56	.664

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P2, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:21:30

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

37.47	.601
38.45	.574
39.29	.388
40.32	.418
41.15	.543
42.02	.811
43.06	.914
43.98	.875
44.89	.918
45.79	.877
46.64	.921
47.49	.924
48.54	.963
49.46	.838
50.31	.967
51.19	1.021
52.22	.902
53.01	.812
53.93	.777
54.87	.786
55.77	.845
56.69	.783
57.71	.828
58.59	.843
59.50	.852
60.42	.784
61.37	.848
62.28	.794
63.10	.675
64.10	.580
65.01	.449
65.82	.331
66.84	.250
67.76	.274
68.67	.421
69.58	.392
70.38	.642
71.40	.514
72.25	.564
73.08	.627

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P2, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:21:30

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

74.05	.661
74.99	.762
75.89	.930
76.74	.901
77.67	.934
78.57	.880
79.49	.849
80.35	.918
81.32	.770
82.17	.816
83.15	.959
84.13	.917
84.99	.870
85.90	.873
86.82	.841
87.67	.740
88.72	.740
89.45	.700
90.22	.672
90.93	.656
92.15	.546
93.19	.456
93.98	.435
95.02	.479
96.80	.522
97.71	.345
98.75	.395
99.67	.488
100.48	.716
101.48	.659
102.27	.696
103.21	.786
104.13	.634
105.04	.894
105.95	.885
106.85	.817
107.77	.495
108.73	.513
109.71	.755
110.59	.896

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P2, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:21:30

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

111.52	.874
112.36	.845
113.31	.728
114.17	.693
115.14	.647
115.99	.446
116.90	.505
117.82	.408
118.75	.318
119.72	.315
120.67	.236
121.60	.286
122.46	.198
123.44	.291
124.23	.393
125.21	.364
126.11	.445
127.09	.511
128.00	.575
128.83	.757
129.70	.757
130.62	.821
131.60	.844

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.07049
2.0	.00000
3.0	.00000
4.0	.11595
5.0	.00000
6.0	.16609
7.0	.00000
8.0	.38648
9.0	.01715
10.0	.34044
11.0	.68817
12.0	.12452
13.0	.30179
14.0	.25537
15.0	.08859
16.0	.09349
17.0	.40511
18.0	.19479
19.0	.60735
20.0	.25176
21.0	.00009
22.0	.73260
23.0	1.15446
24.0	2.39072
25.0	2.54176
26.0	2.29440
27.0	1.56668
28.0	1.88973
29.0	1.19802
30.0	2.01515
31.0	1.05141
32.0	1.65926
33.0	3.14402
34.0	4.36413
35.0	3.84017
36.0	1.86927
37.0	2.98065
38.0	3.79890
39.0	7.36868
40.0	5.01608
41.0	2.71556

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.26719
43.0	.33861
44.0	.61749
45.0	.58396
46.0	.52905
47.0	.51222
48.0	.69826
49.0	1.21122
50.0	.34958
51.0	.32604
52.0	1.56826
53.0	1.64198
54.0	1.64922
55.0	1.46140
56.0	1.06870
57.0	1.48312
58.0	1.21605
59.0	1.33171
60.0	1.37986
61.0	1.19430
62.0	3.12105
63.0	3.54643
64.0	6.20340
65.0	8.21327
66.0	10.70330
67.0	8.05266
68.0	4.90517
69.0	6.54381
70.0	4.42624
71.0	3.34383
72.0	2.02900
73.0	2.20433
74.0	1.38465
75.0	.58227
76.0	.39486
77.0	.59641
78.0	.78281
79.0	.89668
80.0	1.26087
81.0	1.47243
82.0	.53577

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

83.0	.55386
84.0	.95953
85.0	1.44650
86.0	1.21921
87.0	2.25949
88.0	2.25827
89.0	2.49264
90.0	3.02361
91.0	3.84295
92.0	3.84295
93.0	5.14479
94.0	4.07192
95.0	4.07192
96.0	4.37642
97.0	5.83297
98.0	4.72312
99.0	3.50307
100.0	1.95402
101.0	1.97303
102.0	1.24492
103.0	1.79012
104.0	1.36409
105.0	.74649
106.0	1.26416
107.0	2.50075
108.0	3.80920
109.0	1.11465
110.0	.44949
111.0	.88485
112.0	1.03847
113.0	1.90349
114.0	2.21388
115.0	3.34594
116.0	5.59225
117.0	5.29489
118.0	8.00532
119.0	8.74641
120.0	9.15453
121.0	10.17864
122.0	11.71015
123.0	7.16157

CI VALUES (CM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P2 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:21:30
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

124.0	6.69583
125.0	6.06812
126.0	4.34037
127.0	3.20954
128.0	2.43965
129.0	1.67976
130.0	.77889
131.0	1.04982
132.0	1.21705

VOLUME 2, SECTION 3

CONTENTS

TRIAL DPI-005-P3 (DUST) 14 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL P3, FT. STILL TESTS, 14 MAY 78, 15:52:15, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM.MIN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.00000
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.04533
6	.00	75.00	.00	.05550
7	.00	90.00	.00	.05583
8	.00	105.00	.00	.13017
9	.00	120.00	.00	.04217
10	.00	135.00	.00	.00000
11	.00	150.00	.00	.00000
12	.00	165.00	.00	.00000
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00000
15	.00	210.00	.00	.00000

DOSAGE ALONG SIGHT LINE= 4.78500 (GM.MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....P3 (DP1-005)
 DATE OF TRIAL....14 MAY 1978
 FIRE-TIME.....15:52:15
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.017	1.018
2.0	1.031	1.030
3.0	1.024	1.002
4.0	1.035	1.010
5.0	1.037	1.073
6.0	.964	.980
7.0	.932	.931
8.0	.995	.956
9.0	.982	.953
10.0	1.007	1.001
11.0	.976	.927
12.0	1.016	1.001
13.0	.989	.963
14.0	.942	.922
15.0	.995	.972
16.0	.945	.917
17.0	1.008	1.000
18.0	.784	.719
19.0	.809	.733
20.0	.839	.783
21.0	.796	.695
22.0	.838	.723
23.0	.817	.721
24.0	.851	.738
25.0	.888	.839
26.0	.906	.871
27.0	.861	.783
28.0	.901	.865
29.0	.869	.807
30.0	.908	.847
31.0	.884	.835
32.0	.840	.781
33.0	.755	.622
34.0	.652	.549
35.0	.647	.543
36.0	.698	.608
37.0	.680	.578
38.0	.703	.578
39.0	.793	.703
40.0	.788	.719
41.0	.820	.746

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P3 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....15:52:15
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.803	.711
43.0	.766	.697
44.0	.865	.840
45.0	.867	.834
46.0	.808	.758
47.0	.850	.801
48.0	.831	.799
49.0	.836	.783
50.0	.794	.667
51.0	.811	.760
52.0	.762	.700
53.0	.590	.431
54.0	.739	.648
55.0	.512	.404
56.0	.481	.376
57.0	.614	.452
58.0	.526	.426
59.0	.512	.354
60.0	.581	.476
61.0	.413	.244
62.0	.675	.581
63.0	.895	.848
64.0	.921	.976
65.0	.920	.929
66.0	.950	.994
67.0	.869	.876
68.0	.835	.803
69.0	.842	.812
70.0	.755	.709
71.0	.736	.623
72.0	.810	.730
73.0	.783	.681
74.0	.764	.673
75.0	.647	.555
76.0	.504	.377
77.0	.487	.386
78.0	.460	.328
79.0	.400	.271
80.0	.505	.385
81.0	.479	.362
82.0	.647	.512

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P3 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....15:52:15
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
83.0	.737	.624
84.0	.763	.705
85.0	.807	.760
86.0	.830	.803
87.0	.840	.788
88.0	.822	.769
89.0	.881	.843
90.0	.848	.822
91.0	.566	.452
92.0	.575	.479
93.0	.391	.308
94.0	.379	.255
95.0	.425	.346
96.0	.498	.355
97.0	.379	.237
98.0	.524	.382
99.0	.569	.461
100.0	.522	.352
101.0	.785	.668
102.0	.816	.781
103.0	.838	.783
104.0	.802	.743
105.0	.862	.816
106.0	.907	.902
107.0	.878	.829
108.0	.927	.932
109.0	.963	.965
110.0	.983	1.003
111.0	.982	1.021
112.0	1.000	1.018
113.0	1.002	1.006
114.0	.998	1.031
115.0	1.002	1.029
116.0	1.007	1.003
117.0	1.023	1.036
118.0	1.011	1.024
119.0	1.016	1.025
120.0	1.027	1.047
121.0	1.020	1.027
122.0	1.016	1.011
123.0	1.025	1.021

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
124.0	1.028	1.041

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
.9	.833	.648	.80E+00
1.8	.954	.153	.94E+00
2.7	.931	.248	.91E+00
3.5	1.036	.000	.10E+01
4.5	.957	.142	.95E+00
5.4	1.008	.000	.10E+01
6.3	1.005	.000	.10E+01
7.1	.954	.153	.94E+00
8.1	.900	.374	.88E+00
9.0	.962	.121	.95E+00
9.9	.954	.153	.94E+00
10.8	.957	.142	.95E+00
11.7	.797	.796	.75E+00
12.6	.962	.121	.95E+00
13.4	.936	.227	.92E+00
14.3	.993	.000	.99E+00
15.3	.859	.527	.83E+00
16.2	.941	.190	.93E+00
17.0	.859	.527	.83E+00
18.0	1.011	.000	.10E+01
18.8	.663	1.328	.60E+00
19.8	.746	.991	.69E+00
20.8	.831	.627	.79E+00
21.5	.712	1.112	.65E+00
22.5	.743	.970	.69E+00
23.4	.720	1.065	.66E+00
24.1	.689	1.207	.63E+00
25.2	.792	.786	.75E+00
26.2	.836	.591	.80E+00
26.9	.867	.464	.84E+00
27.9	.789	.796	.74E+00
28.8	.828	.638	.79E+00
29.7	.807	.722	.77E+00
30.6	.777	.849	.73E+00
31.5	.882	.432	.85E+00
32.4	.900	.358	.88E+00
33.2	.795	.791	.75E+00
34.2	.728	1.065	.67E+00
35.1	.674	1.286	.61E+00
35.9	.548	1.802	.47E+00
36.8	.666	1.302	.60E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
37.7	.630	1.450	.56E+00
38.6	.522	1.892	.44E+00
39.6	.653	1.355	.59E+00
40.4	.751	.954	.70E+00
41.3	.671	1.281	.61E+00
42.2	.702	1.154	.64E+00
43.1	.756	.933	.70E+00
44.0	.715	1.102	.66E+00
44.8	.838	.611	.80E+00
45.7	.861	.517	.83E+00
46.7	.838	.611	.80E+00
47.6	.733	1.059	.68E+00
48.5	.843	.606	.81E+00
49.3	.836	.638	.80E+00
50.2	.864	.522	.83E+00
51.2	.810	.743	.77E+00
52.1	.748	.996	.70E+00
52.9	.645	1.402	.58E+00
53.9	.548	1.787	.47E+00
54.8	.489	2.014	.41E+00
55.6	.463	2.103	.38E+00
56.6	.375	2.446	.29E+00
57.5	.255	2.926	.18E+00
58.4	.381	2.394	.30E+00
59.2	.401	2.309	.32E+00
60.0	.147	3.353	.91E-01
60.8	.247	2.942	.17E+00
62.0	.417	2.246	.33E+00
62.9	.460	2.083	.38E+00
63.6	.743	.939	.69E+00
64.5	.656	1.313	.59E+00
65.6	.656	1.297	.59E+00
66.3	.892	.343	.87E+00
67.3	.851	.527	.82E+00
68.3	.789	.796	.74E+00
69.2	.771	.854	.72E+00
70.0	.782	.812	.74E+00
71.0	.638	1.387	.57E+00
71.8	.684	1.197	.62E+00
72.8	.738	.991	.68E+00
73.5	.640	1.376	.57E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
74.4	.710	1.092	.65E+00
75.4	.558	1.713	.48E+00
76.3	.530	1.829	.45E+00
77.3	.357	2.536	.28E+00
78.0	.350	2.552	.27E+00
79.0	.309	2.720	.23E+00
80.0	.265	2.899	.19E+00
80.9	.391	2.383	.31E+00
81.8	.347	2.562	.27E+00
82.7	.399	2.351	.32E+00
83.6	.612	1.476	.54E+00
84.4	.645	1.355	.58E+00
85.3	.679	1.234	.62E+00
86.3	.787	.807	.74E+00
87.1	.825	.648	.79E+00
88.0	.764	.917	.71E+00
88.9	.777	.880	.73E+00
89.8	.779	.854	.73E+00
90.7	.784	.833	.74E+00
91.6	.555	1.771	.48E+00
92.5	.481	2.061	.40E+00
93.2	.437	2.224	.36E+00
94.0	.399	2.383	.32E+00
95.2	.355	2.546	.27E+00
95.9	.378	2.451	.30E+00
97.0	.381	2.441	.30E+00
97.9	.375	2.462	.29E+00
98.8	.339	2.609	.26E+00
99.7	.522	1.861	.44E+00
100.3	.399	2.383	.32E+00
101.5	.445	2.177	.36E+00
102.4	.622	1.450	.55E+00
103.3	.769	.865	.72E+00
104.1	.777	.849	.73E+00
105.0	.784	.833	.74E+00
106.0	.825	.664	.79E+00
106.8	.882	.432	.85E+00
107.8	.846	.595	.81E+00
108.7	.874	.479	.85E+00
109.6	.921	.290	.90E+00
110.4	.990	.021	.99E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
111.3	.969	.121	.95E+00
112.2	.990	.036	.99E+00
113.1	1.031	.000	.10E+01
114.1	1.021	.000	.10E+01
114.8	1.011	.000	.10E+01
115.8	1.005	.000	.10E+01
116.7	1.021	.000	.10E+01
117.6	1.018	.000	.10E+01
118.5	1.044	.000	.11E+01
119.4	1.023	.000	.10E+01
120.3	1.054	.000	.11E+01
121.2	1.047	.000	.11E+01
122.1	1.049	.000	.11E+01
123.0	1.052	.000	.11E+01
123.9	1.047	.000	.11E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL PT. FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: OT

FUNCTION TIME 15:52:15

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

.74	.837
1.75	.956
2.54	.938
3.57	.948
4.47	.918
5.37	1.019
6.29	.990
7.06	.898
8.08	.856
8.94	.928
9.78	.888
10.81	.890
11.71	.775
12.51	.934
13.41	.927
14.31	.937
15.22	.861
16.22	.945
17.00	.939
18.01	.962
18.81	.667
19.85	.744
20.66	.813
21.56	.754
22.47	.691
23.33	.737
24.24	.698
25.14	.802
26.15	.839
27.05	.888
27.82	.768
28.84	.816
29.66	.789
30.63	.769
31.44	.863
32.33	.902
33.20	.863
34.12	.705
35.11	.681
35.88	.575

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P3. FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:52:15

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
36.89	.690
37.77	.641
38.56	.534
39.52	.661
40.47	.769
41.23	.687
42.18	.733
43.13	.767
43.90	.700
44.85	.846
45.74	.863
46.60	.848
47.47	.728
48.41	.872
49.28	.863
50.29	.865
51.12	.810
51.95	.761
52.96	.681
53.79	.556
54.70	.539
55.56	.498
56.57	.404
57.41	.289
58.36	.404
59.17	.441
60.05	.176
60.93	.285
61.95	.440
62.85	.490
63.62	.813
64.52	.697
65.42	.673
66.33	.937
67.21	.851
68.25	.852
69.06	.790
70.04	.810
70.95	.666
71.83	.712

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P3. FT. GILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:52:15

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

72.76	.796
73.54	.731
74.49	.714
75.48	.603
76.27	.565
77.26	.388
78.06	.376
78.95	.338
79.87	.284
80.88	.419
81.65	.371
82.68	.422
83.58	.658
84.46	.698
85.25	.709
86.20	.807
87.11	.858
87.99	.818
88.92	.801
89.74	.810
90.59	.845
91.62	.564
92.51	.506
93.48	.490
94.17	.408
95.18	.358
95.96	.390
96.92	.440
97.83	.378
98.79	.353
99.69	.512
100.45	.400
101.43	.443
102.37	.639
103.26	.805
104.16	.760
105.03	.770
105.96	.825
106.77	.892
107.72	.807

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P3. FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 15:52:15

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

108.54	.868
109.44	.927
110.34	.999
111.32	1.000
112.23	1.011
113.05	1.040
113.93	1.067
114.95	.968
115.71	1.010
116.61	1.037
117.50	1.042
118.40	1.040
119.41	1.008
120.32	1.060
121.21	1.020
122.07	1.045
122.94	1.050
123.80	1.043

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.00000
4.0	.00000
5.0	.00000
6.0	.13232
7.0	.45881
8.0	.28973
9.0	.30906
10.0	.00000
11.0	.48798
12.0	.00000
13.0	.24415
14.0	.51862
15.0	.18303
16.0	.55836
17.0	.00000
18.0	2.11445
19.0	1.99064
20.0	1.56812
21.0	2.33689
22.0	2.07859
23.0	2.09592
24.0	1.94655
25.0	1.12629
26.0	.88734
27.0	1.56681
28.0	.93087
29.0	1.37194
30.0	1.06153
31.0	1.15308
32.0	1.58597
33.0	3.04801
34.0	3.85164
35.0	3.91800
36.0	3.18886
37.0	3.51809
38.0	3.51312
39.0	2.25644
40.0	2.11359
41.0	1.88119

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	2.18447
43.0	2.31565
44.0	1.11871
45.0	1.16162
46.0	1.77833
47.0	1.42170
48.0	1.43812
49.0	1.57284
50.0	2.60018
51.0	1.76481
52.0	2.28392
53.0	5.40692
54.0	2.78445
55.0	5.80832
56.0	6.27844
57.0	5.09559
58.0	5.48174
59.0	6.66802
60.0	4.76019
61.0	9.04817
62.0	3.48720
63.0	1.05669
64.0	.15773
65.0	.47448
66.0	.04119
67.0	.85108
68.0	1.40533
69.0	1.33720
70.0	2.21049
71.0	3.03878
72.0	2.02312
73.0	2.46734
74.0	2.54501
75.0	3.77613
76.0	6.26208
77.0	6.10827
78.0	7.15565
79.0	8.38546
80.0	6.12889
81.0	6.52745
82.0	4.29145

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

83.0	3.02593
84.0	2.24623
85.0	1.76103
86.0	1.40737
87.0	1.52892
88.0	1.68663
89.0	1.09797
90.0	1.25555
91.0	5.09287
92.0	4.72347
93.0	7.56285
94.0	8.75711
95.0	6.81242
96.0	6.64022
97.0	9.22556
98.0	6.16582
99.0	4.96685
100.0	6.69244
101.0	2.59065
102.0	1.58676
103.0	1.56969
104.0	1.90332
105.0	1.30668
106.0	.65834
107.0	1.20666
108.0	.44933
109.0	.23116
110.0	.00000
111.0	.00000
112.0	.00000
113.0	.00000
114.0	.00000
115.0	.00000
116.0	.00000
117.0	.00000
118.0	.00000
119.0	.00000
120.0	.00000
121.0	.00000
122.0	.00000
123.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...P3 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....15:52:15
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME
124.0 .00000

VOLUME 2, SECTION 4

CONTENTS

TRIAL DPI-005-P4 (DUST) 14 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL P4, FT. SILL TESTS, 14 MAY 78, 16:17:00, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM.MTN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.00000
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.01250
6	.00	75.00	.00	.02800
7	.00	90.00	.00	.02883
8	.00	105.00	.00	.03433
9	.00	120.00	.00	.06117
10	.00	135.00	.00	.03133
11	.00	150.00	.00	.00000
12	.00	165.00	.00	.00000
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00000
15	.00	210.00	.00	.00000

DOSAGE ALONG SIGHT LINE= 2.94250 (GM.MTN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...P4 (DP1-005)
 DATE OF TRIAL...14 MAY 1978
 FIRE-TIME.....16:17: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.989	.983
2.0	1.000	.995
3.0	1.002	.968
4.0	.995	.999
5.0	.990	.992
6.0	.994	1.004
7.0	.992	1.002
8.0	.975	.980
9.0	.947	.917
10.0	.932	.879
11.0	.955	.931
12.0	.786	.697
13.0	.852	.742
14.0	.915	.893
15.0	.929	.871
16.0	.935	.924
17.0	.898	.799
18.0	.860	.757
19.0	.853	.826
20.0	.864	.843
21.0	.777	.690
22.0	.627	.518
23.0	.857	.811
24.0	.774	.663
25.0	.822	.724
26.0	.716	.648
27.0	.589	.491
28.0	.763	.675
29.0	.535	.483
30.0	.370	.244
31.0	.578	.433
32.0	.694	.592
33.0	.729	.670
34.0	.627	.513
35.0	.771	.707
36.0	.794	.750
37.0	.826	.767
38.0	.808	.758
39.0	.816	.759
40.0	.792	.719
41.0	.807	.734

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....P4 (DP1-005)
 DATE OF TRIAL....14 MAY 1978
 FIRE-TIME.....16:17: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.864	.805
43.0	.862	.831
44.0	.759	.676
45.0	.676	.601
46.0	.601	.517
47.0	.594	.487
48.0	.736	.662
49.0	.599	.496
50.0	.790	.753
51.0	.804	.755
52.0	.788	.753

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....P4 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....16:17: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.4	1.006	.000	.10E+01
2.3	.994	.026	.99E+00
3.2	.988	.047	.99E+00
4.1	.983	.067	.98E+00
5.1	.996	.016	.10E+01
6.0	.991	.036	.99E+00
7.0	1.001	.000	.10E+01
7.8	.978	.088	.97E+00
8.8	.971	.119	.96E+00
9.7	.958	.154	.95E+00
10.6	.892	.421	.87E+00
11.6	.920	.292	.90E+00
12.4	.869	.498	.84E+00
13.5	.730	1.062	.67E+00
14.3	.738	1.000	.68E+00
15.3	.765	.871	.72E+00
16.3	.669	1.261	.61E+00
17.1	.806	.707	.76E+00
18.2	.694	1.143	.63E+00
18.9	.550	1.712	.47E+00
19.9	.677	1.199	.61E+00
21.0	.583	1.579	.51E+00
21.9	.629	1.378	.56E+00
22.6	.507	1.871	.43E+00
23.7	.578	1.584	.50E+00
24.6	.583	1.547	.51E+00
25.6	.687	1.127	.63E+00
26.4	.765	.809	.72E+00
27.2	.527	1.773	.45E+00
28.4	.550	1.681	.47E+00
29.2	.575	1.563	.50E+00
30.0	.421	2.188	.34E+00
31.2	.246	2.881	.17E+00
32.2	.444	2.080	.36E+00
33.1	.507	1.824	.43E+00
33.8	.489	1.896	.41E+00
34.9	.532	1.737	.45E+00
35.9	.651	1.255	.59E+00
36.8	.720	.993	.66E+00
37.8	.786	.727	.74E+00
38.6	.773	.794	.72E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...P4 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....16:17: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
39.6	.755	.881	.70E+00
40.5	.732	.989	.68E+00
41.4	.722	1.030	.67E+00
42.4	.748	.928	.70E+00
43.3	.839	.574	.80E+00
44.2	.770	.851	.72E+00
45.2	.667	1.271	.60E+00
46.1	.575	1.641	.50E+00
46.9	.482	2.005	.40E+00
48.0	.456	2.107	.37E+00
48.9	.634	1.389	.57E+00
49.9	.474	2.035	.39E+00
50.8	.606	1.486	.53E+00
51.7	.705	1.102	.65E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P4 FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 16:17:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.38	1.007
2.18	1.029
3.24	.979
4.16	.976
4.98	.911
5.96	.993
6.87	.992
7.87	.961
8.78	1.025
9.74	.965
10.59	.867
11.59	.941
12.41	.861
13.40	.741
14.30	.746
15.33	.798
16.27	.725
17.10	.847
18.15	.708
18.98	.597
19.91	.684
20.92	.630
21.77	.633
22.70	.527
23.72	.651
24.68	.588
25.53	.716
26.40	.764
27.32	.531
28.40	.597
29.23	.614
30.14	.409
31.21	.274
32.15	.431
32.94	.525
33.88	.495
34.81	.521
35.82	.656
36.79	.740
37.62	.783

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P4, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 16:17:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

38.67	.780
39.60	.781
40.51	.734
41.37	.803
42.26	.764
43.33	.870
44.13	.800
45.19	.657
46.13	.538
46.93	.502
47.98	.454
48.92	.647
49.75	.465
50.78	.631
51.62	.705
52.53	.728
53.57	.696
54.37	.700
55.33	.755
56.31	.781
57.24	.822
58.22	.804
59.15	.945
60.05	.944
60.93	.933
61.80	1.002
62.85	.995
63.71	.960
64.58	.971
65.55	.963
66.48	1.011
67.43	.967
68.35	1.001
69.21	.930
70.13	.907
71.11	.930
72.09	1.026
72.89	.941
73.86	.999
74.85	.994

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL P4, FT. SILL TESTS

DATE: 14 MAY 1978

SMOKE: DT

FUNCTION TIME 16:17:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

75.77	.938
76.56	1.002
77.60	1.004
78.40	.977
79.45	.954

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P4 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....16:17: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.17970
2.0	.04898
3.0	.33681
4.0	.00710
5.0	.08221
6.0	.00000
7.0	.00000
8.0	.20483
9.0	.89533
10.0	1.33634
11.0	.74107
12.0	3.74682
13.0	3.10563
14.0	1.17741
15.0	1.43730
16.0	.82010
17.0	2.33467
18.0	2.90040
19.0	1.99114
20.0	1.77846
21.0	3.85385
22.0	6.84235
23.0	2.17610
24.0	4.27259
25.0	3.35718
26.0	4.51553
27.0	7.38923
28.0	4.08111
29.0	7.56675
30.0	14.66509
31.0	8.70982
32.0	5.44655
33.0	4.15983
34.0	6.94365
35.0	3.60168
36.0	2.98530
37.0	2.75869
38.0	2.87829
39.0	2.86378
40.0	3.42194
41.0	3.20817

CL VALUES (CM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....P4 (DP1-005)
DATE OF TRIAL...14 MAY 1978
FIRE-TIME.....16:17: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	2.25095
43.0	1.92372
44.0	4.07550
45.0	5.29067
46.0	6.84877
47.0	7.47576
48.0	4.28147
49.0	7.29088
50.0	2.94724
51.0	2.91911
52.0	2.94692

VOLUME 2, SECTION 5

CONTENTS

TRIAL DPI-005-T3 (DUST) 16 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...3 (DP1-008)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME..... 9:54: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
------------------------------	----------------------	----------------------

1.0	1.003	.991
2.0	1.003	.993
3.0	.998	.995
4.0	1.005	.994
5.0	1.000	1.000
6.0	.997	.988
7.0	.997	.991
8.0	.983	.984
9.0	1.001	.983
10.0	.988	.974
11.0	.996	.979
12.0	.989	.969
13.0	.982	.961
14.0	.930	.904
15.0	.594	.518
16.0	.489	.386
17.0	.282	.200
18.0	.166	.117
19.0	.198	.138
20.0	.206	.131
21.0	.167	.091
22.0	.177	.104
23.0	.207	.133
24.0	.215	.122
25.0	.213	.130
26.0	.277	.194
27.0	.376	.261
28.0	.543	.429
29.0	.623	.510
30.0	.659	.569
31.0	.666	.572
32.0	.777	.719
33.0	.787	.734
34.0	.793	.730
35.0	.834	.793
36.0	.871	.844
37.0	.898	.888
38.0	.908	.888
39.0	.930	.915
40.0	.944	.957
41.0	.963	.956

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....3 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME..... 9:54: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.953	.944
43.0	.958	.949
44.0	.975	.987
45.0	.978	.963
46.0	.980	.980
47.0	.966	.976
48.0	.989	.994
49.0	.987	.986
50.0	.982	.983
51.0	.989	.985
52.0	.989	.979
53.0	.993	.985
54.0	.999	.995
55.0	.990	.983
56.0	.999	.992
57.0	.990	.979
58.0	.992	1.003
59.0	.994	.986

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...3 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME..... 9:54: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.0	.993	.000	.99E+00
2.0	.993	.000	.99E+00
3.0	.986	.000	.98E+00
4.0	.986	.000	.98E+00
5.0	.993	.000	.99E+00
6.0	1.003	.000	.10E+01
7.0	.996	.000	.10E+01
8.0	1.010	.000	.10E+01
9.1	1.003	.000	.10E+01
10.1	1.027	.000	.10E+01
11.1	.989	.000	.99E+00
12.1	.983	.000	.98E+00
13.1	.962	.000	.95E+00
14.0	.746	.325	.69E+00
14.8	.476	1.230	.40E+00
16.1	.206	2.197	.14E+00
17.1	.074	2.740	.39E-01
17.8	.098	2.772	.55E-01
18.8	.095	2.892	.52E-01
19.8	.074	3.068	.39E-01
20.7	.078	3.167	.41E-01
22.0	.084	3.160	.46E-01
22.8	.071	3.173	.37E-01
23.9	.074	3.131	.39E-01
24.8	.118	2.986	.69E-01
26.0	.128	2.984	.77E-01
26.9	.334	2.322	.25E+00
27.8	.415	2.039	.33E+00
28.9	.456	1.890	.37E+00
29.9	.480	1.797	.40E+00
30.9	.645	1.221	.58E+00
31.9	.645	1.158	.58E+00
32.8	.648	1.085	.58E+00
34.0	.736	.764	.68E+00
35.0	.817	.466	.78E+00
36.0	.871	.257	.84E+00
37.1	.932	.026	.92E+00
38.1	.915	.034	.90E+00
39.1	.952	.000	.94E+00
40.2	.962	.000	.95E+00
41.2	.952	.000	.94E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060 μ

TRIAL NUMBER....3 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME..... 9:54: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
42.2	.983	.000	.98E+00
43.1	1.017	.000	.10E+01
44.3	.986	.000	.98E+00
45.3	.986	.000	.98E+00
46.2	.979	.000	.97E+00
47.3	.983	.000	.98E+00
48.2	.983	.000	.98E+00
49.3	.983	.000	.98E+00
50.3	.983	.000	.98E+00
51.3	.983	.000	.98E+00
52.4	.996	.000	.10E+01
53.3	.996	.000	.10E+01
54.3	.979	.000	.97E+00
55.3	.969	.000	.96E+00
56.3	.959	.000	.95E+00
57.2	.986	.000	.98E+00
58.3	1.003	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 3. FT. SILL TESTS
DATE: 16 MAY 1970
SMOKE: 0T
FUNCTION TIME 09:54:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

.94	.966
1.92	.982
2.90	.999
3.93	.994
4.99	.961
5.00	.976
7.00	.966
7.89	.962
8.92	.991
10.01	.949
10.98	.937
11.98	.981
13.04	.880
14.08	.722
14.95	.364
15.06	.187
16.95	.065
17.87	.093
18.82	.088
19.87	.070
20.84	.075
21.95	.075
22.91	.066
23.97	.077
24.92	.108
25.81	.122
26.92	.310
27.83	.421
28.83	.425
29.90	.476
30.80	.607
31.92	.613
32.82	.594
33.89	.707
34.98	.776
36.07	.824
36.94	.849
37.99	.857
39.12	.884
40.16	.883

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 3. FT. SILL TESTS
DATE: 16 MAY 1979
SMOKE: DT
FUNCTION TIME 09:54:01

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
41.17	.896
42.10	.861
43.10	.874
44.17	.948
45.23	.950
46.25	.934
47.17	.929
48.31	.929
49.16	.922
50.17	.897
51.31	.914
52.23	.956
53.31	.920
54.29	.957
55.21	.935
56.29	.916
57.27	.954
58.16	.887
59.33	.914

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....3 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME..... 9:54: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.21745
2.0	.16517
3.0	.12263
4.0	.13490
5.0	.00000
6.0	.30647
7.0	.23241
8.0	.38118
9.0	.42328
10.0	.63490
11.0	.52284
12.0	.77625
13.0	.95829
14.0	2.47151
15.0	16.02354
16.0	23.22446
17.0	39.24960
18.0	52.34612
19.0	48.37740
20.0	49.58879
21.0	58.56805
22.0	55.27560
23.0	49.22523
24.0	51.22045
25.0	49.75584
26.0	39.95489
27.0	32.71607
28.0	20.66678
29.0	16.44681
30.0	13.76894
31.0	13.63593
32.0	8.05349
33.0	7.52910
34.0	7.66302
35.0	5.66746
36.0	4.14162
37.0	2.90716
38.0	2.88653
39.0	2.17852
40.0	1.07555
41.0	1.10062

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....3 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME..... 9:54: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	1.41551
43.0	1.27133
44.0	.32457
45.0	.91797
46.0	.48102
47.0	.59153
48.0	.15156
49.0	.35109
50.0	.43039
51.0	.37454
52.0	.51527
53.0	.35729
54.0	.11737
55.0	.42639
56.0	.19327
57.0	.52746
58.0	.00000
59.0	.33561

VOLUME 2, SECTION 6

CONTENTS

TRIAL DPI-005-T4 (DUST) 16 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....4 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:31: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.998	.997
2.0	1.008	1.014
3.0	.976	.984
4.0	.950	.940
5.0	.820	.744
6.0	.930	.920
7.0	.965	.957
8.0	.972	.971
9.0	.942	.920
10.0	.316	.412
11.0	.013	.015
12.0	.017	.029
13.0	.025	.018
14.0	.013	.009
15.0	.017	.006
16.0	.006	.007
17.0	.004	.004
18.0	.024	.014
19.0	.090	.052
20.0	.054	.021
21.0	.044	.025
22.0	.051	.024
23.0	.063	.033
24.0	.141	.081
25.0	.160	.102
26.0	.163	.093
27.0	.235	.153
28.0	.286	.217
29.0	.392	.297
30.0	.465	.346
31.0	.654	.586
32.0	.618	.513
33.0	.794	.797
34.0	.834	.843
35.0	.852	.870
36.0	.866	.878
37.0	.878	.883
38.0	.906	.952
39.0	.916	.954
40.0	.943	.984
41.0	.931	.939

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....4 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:31: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.960	1.025
43.0	.963	.981
44.0	.947	.987
45.0	.963	1.017
46.0	.965	.997
47.0	.977	1.010
48.0	.983	1.010
49.0	.971	1.006
50.0	.994	1.005
51.0	.975	.986
52.0	.973	.980
53.0	.990	1.027
54.0	.992	.971
55.0	.991	.996
56.0	.992	.995
57.0	.981	1.000
58.0	.996	1.002
59.0	.986	1.004

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....4 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:31: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.1	.943	.284	.93E+00
2.0	1.024	.000	.10E+01
3.0	.971	.119	.97E+00
3.8	.735	1.217	.69E+00
4.9	.924	.326	.91E+00
5.8	.943	.237	.93E+00
6.8	.984	.044	.98E+00
7.8	.974	.000	.97E+00
8.5	.833	.000	.80E+00
9.9	.013	3.394	.53E-02
10.9	.047	3.544	.26E-01
11.4	.126	2.891	.83E-01
12.3	.038	2.572	.20E-01
13.8	.038	2.541	.20E-01
14.8	.016	2.942	.69E-02
15.9	.072	3.128	.43E-01
16.8	.038	3.838	.20E-01
17.7	.025	4.163	.12E-01
18.7	.025	4.304	.12E-01
19.7	.013	4.488	.53E-02
20.3	.019	4.537	.86E-02
21.6	.013	4.582	.53E-02
22.5	.044	4.418	.24E-01
23.4	.069	4.315	.41E-01
24.4	.050	4.420	.28E-01
25.6	.082	4.256	.50E-01
26.6	.088	4.210	.54E-01
27.3	.242	3.483	.18E+00
28.4	.333	3.053	.27E+00
29.6	.431	2.593	.36E+00
30.4	.462	2.460	.40E+00
31.5	.622	1.688	.57E+00
32.5	.760	1.020	.72E+00
33.6	.880	.472	.86E+00
34.7	.874	.501	.85E+00
35.7	.886	.442	.87E+00
36.7	.940	.174	.93E+00
37.7	.921	.263	.91E+00
38.8	.955	.116	.95E+00
39.8	.968	.056	.96E+00
40.7	1.018	.000	.10E+01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....4 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:31: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
41.7	.977	.012	.97E+00
42.8	.977	.012	.97E+00
43.9	1.018	.000	.10E+01
44.9	.987	.000	.98E+00
45.9	.955	.116	.95E+00
46.8	.980	.000	.98E+00
47.8	.980	.000	.98E+00
48.7	1.012	.000	.10E+01
49.8	.971	.041	.97E+00
50.7	.987	.000	.98E+00
51.7	1.015	.000	.10E+01
52.8	1.006	.000	.10E+01
53.8	1.040	.000	.10E+01
54.8	1.012	.000	.10E+01
55.8	1.021	.000	.10E+01
56.7	1.037	.000	.10E+01
57.8	1.012	.000	.10E+01
58.9	1.031	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 4 FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 11:31:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

.95	1.031
2.07	1.016
2.96	1.032
3.89	.770
4.91	.969
5.91	.946
6.72	.969
7.74	.971
8.66	.882
9.75	.010
10.73	.010
11.73	.010
12.57	.010
13.68	.010
14.53	.010
15.58	.010
16.64	.010
17.57	.010
18.69	.023
19.56	.010
20.52	.012
21.65	.011
22.54	.037
23.49	.076
24.47	.049
25.59	.075
26.43	.081
27.45	.257
28.46	.362
29.54	.395
30.40	.439
31.56	.604
32.44	.760
33.64	.923
34.61	.868
35.71	.892
36.60	.902
37.67	.957
38.60	.914
39.61	.958

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 4. FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 11:31:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

40.62	.935
41.80	.998
42.85	1.009
43.85	.988
44.88	.965
45.77	.968
46.83	.990
47.79	1.040
48.68	.998
49.70	1.001
50.62	.998
51.70	1.021
52.64	1.000
53.71	1.022
54.70	1.017
55.78	1.005
56.67	.963
57.80	1.006
58.82	1.000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....4 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:31: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.06565
2.0	.00000
3.0	.40179
4.0	1.51692
5.0	7.21720
6.0	2.02773
7.0	1.07047
8.0	.71822
9.0	2.04059
10.0	21.63298
11.0	102.32704
12.0	86.26323
13.0	97.64545
14.0	115.93965
15.0	125.66464
16.0	121.88158
17.0	132.93356
18.0	104.11488
19.0	72.01936
20.0	93.96744
21.0	89.92557
22.0	91.46690
23.0	83.05113
24.0	61.36184
25.0	55.74293
26.0	57.80019
27.0	45.81165
28.0	37.28580
29.0	29.62888
30.0	25.91200
31.0	13.02229
32.0	16.27050
33.0	5.52733
34.0	4.16044
35.0	3.38705
36.0	3.18438
37.0	3.02303
38.0	1.20744
39.0	1.14332
40.0	.38382
41.0	1.54617

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...4 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:31: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.00000
43.0	.45721
44.0	.32104
45.0	.00000
46.0	.07325
47.0	.00000
48.0	.00000
49.0	.00000
50.0	.00000
51.0	.34120
52.0	.50311
53.0	.00000
54.0	.71335
55.0	.10415
56.0	.11223
57.0	.00000
58.0	.00000
59.0	.00000

VOLUME 2, SECTION 7

CONTENTS

TRIAL DPI-005-T5 (DUST) 16 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...5 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:40: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.980	.978
2.0	.797	.755
3.0	.596	.481
4.0	.353	.264
5.0	.014	.008
6.0	.003	.008
7.0	.003	.010
8.0	.003	.007
9.0	.003	.010
10.0	.003	.009
11.0	.003	.009
12.0	.003	.004
13.0	.005	.005
14.0	.038	.016
15.0	.103	.049
16.0	.305	.202
17.0	.440	.335
18.0	.533	.432
19.0	.417	.313
20.0	.058	.030
21.0	.064	.038
22.0	.051	.028
23.0	.065	.032
24.0	.052	.029
25.0	.049	.037
26.0	.166	.139
27.0	.149	.077
28.0	.206	.119
29.0	.459	.395
30.0	.496	.384
31.0	.689	.665
32.0	.813	.852
33.0	.824	.826
34.0	.825	.834
35.0	.857	.886
36.0	.853	.878
37.0	.867	.872
38.0	.863	.872
39.0	.869	.870
40.0	.862	.859
41.0	.896	.919

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....5 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:40: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.895	.899
43.0	.899	.902
44.0	.898	.891
45.0	.925	.954
46.0	.942	.944
47.0	.950	.966
48.0	.947	.962
49.0	.959	.984
50.0	.955	.981
51.0	.969	.983
52.0	.975	.990
53.0	.970	.997

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...5 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:40: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
.8	.917	.346	.91E+00
1.9	.492	1.951	.47E+00
2.7	.193	2.810	.17E+00
3.7	.046	3.080	.38E-01
5.2	.018	3.207	.14E-01
6.3	.046	3.439	.38E-01
7.3	.028	3.904	.22E-01
8.4	.012	4.154	.92E-02
8.9	.003	4.254	.21E-02
10.5	.003	4.254	.21E-02
11.0	.006	4.210	.44E-02
12.1	.003	4.176	.21E-02
13.5	.018	4.082	.14E-01
14.4	.104	3.718	.90E-01
15.6	.190	3.370	.17E+00
16.6	.269	2.968	.25E+00
17.8	.422	2.065	.40E+00
18.5	.095	3.084	.81E-01
20.1	.015	3.345	.12E-01
21.1	.034	3.504	.27E-01
21.8	.018	3.738	.14E-01
23.0	.012	3.810	.92E-02
24.1	.037	3.758	.30E-01
25.2	.128	3.384	.11E+00
26.2	.083	3.555	.70E-01
26.9	.089	3.515	.76E-01
28.1	.449	2.015	.43E+00
29.5	.434	2.062	.41E+00
30.4	.660	1.157	.64E+00
31.5	.770	.740	.76E+00
32.6	.749	.874	.74E+00
33.7	.819	.604	.81E+00
34.6	.810	.656	.80E+00
35.7	.819	.635	.81E+00
36.7	.783	.800	.77E+00
37.8	.807	.716	.80E+00
38.9	.819	.697	.81E+00
40.0	.828	.676	.82E+00
40.9	.844	.645	.83E+00
41.9	.893	.477	.89E+00
43.2	.822	.779	.81E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....5 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:40: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
44.2	.844	.676	.83E+00
45.2	.865	.558	.86E+00
46.3	.862	.523	.85E+00
47.4	.917	.268	.91E+00
48.5	.929	.171	.92E+00
49.6	.929	.140	.92E+00
50.6	.847	.460	.84E+00
51.5	.920	.130	.92E+00
52.5	.874	.286	.87E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 5, FT. SILL TESTS
DATE: 16 MAY 1978
SMOKE: DT
FUNCTION TIME 11:40:00

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
.91	.856
1.99	.467
2.92	.175
3.92	.014
5.10	.010
6.15	.010
7.20	.010
8.08	.010
9.28	.010
10.23	.010
11.27	.010
12.46	.010
13.53	.015
14.50	.114
15.65	.207
16.68	.262
17.64	.460
18.72	.010
19.82	.014
20.89	.010
21.95	.012
23.04	.010
24.12	.034
25.14	.121
26.17	.062
27.10	.067
28.21	.527
29.42	.339
30.49	.689
31.56	.854
32.53	.822
33.69	.858
34.75	.896
35.75	.858
36.82	.798
37.85	.769
38.78	.715
39.82	.601
40.90	.570
42.06	.488

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 5, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 11:40:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

43.13	.754
44.20	.833
45.22	.829
46.25	.849
47.35	.800
48.55	.988
49.59	.923
50.58	.973
51.54	.932
52.53	.894
53.50	.946
54.50	.863
55.40	.799
56.39	.854
57.40	.828
58.57	.967
59.49	.933
60.45	.925
61.43	.919
62.41	.850
63.33	.890
64.24	.942
65.34	1.001
66.25	.970
67.18	.964
68.16	.880
69.16	.969
70.16	1.062
71.16	1.009
72.04	1.044
73.15	1.036
74.14	.923
75.13	.920

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....5 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:40: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.54715
2.0	6.86195
3.0	17.85952
4.0	32.45034
5.0	116.46564
6.0	118.39439
7.0	112.24458
8.0	121.07018
9.0	112.38666
10.0	116.24176
11.0	114.16795
12.0	132.16562
13.0	127.05318
14.0	100.20177
15.0	73.56392
16.0	38.96381
17.0	26.64309
18.0	20.49918
19.0	28.30799
20.0	85.86227
21.0	79.61897
22.0	86.80992
23.0	83.69157
24.0	85.99081
25.0	80.61929
26.0	48.18916
27.0	62.50909
28.0	51.81895
29.0	22.65646
30.0	23.33584
31.0	9.93467
32.0	3.91170
33.0	4.65030
34.0	4.42883
35.0	2.93938
36.0	3.17696
37.0	3.34631
38.0	3.35259
39.0	3.38907
40.0	3.69654
41.0	2.05072

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....5 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:40: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	2.60735
43.0	2.52769
44.0	2.80762
45.0	1.15500
46.0	1.41540
47.0	.84819
48.0	.95622
49.0	.38957
50.0	.46485
51.0	.42621
52.0	.25599
53.0	.06224

VOLUME 2, SECTION 8

CONTENTS

TRIAL DPI-005-T6 (DUST) 16 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....6 (DP1-005)

DATE OF TRIAL...16 MAY 1978

FIRE-TIME.....11:49: 0

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.992	.989
2.0	.991	1.013
3.0	.998	.973
4.0	.877	.828
5.0	.775	.669
6.0	.685	.576
7.0	.612	.486
8.0	.493	.383
9.0	.288	.194
10.0	.106	.058
11.0	.082	.048
12.0	.024	.016
13.0	.006	.008
14.0	.006	.007
15.0	.015	.008
16.0	.024	.011
17.0	.011	.010
18.0	.039	.022
19.0	.040	.017
20.0	.045	.012
21.0	.055	.029
22.0	.062	.034
23.0	.082	.050
24.0	.109	.060
25.0	.125	.077
26.0	.241	.168
27.0	.228	.154
28.0	.339	.249
29.0	.444	.350
30.0	.474	.351
31.0	.636	.545
32.0	.685	.591
33.0	.726	.674
34.0	.786	.749
35.0	.810	.779
36.0	.854	.856
37.0	.877	.852
38.0	.886	.894
39.0	.905	.911
40.0	.914	.931
41.0	.924	.937

AD-A063 391

ARMY DUGWAY PROVING GROUND UTAH
DUST/DEBRIS TEST CONDUCTED AT FORT SILL, OKLAHOMA BY DUGWAY PRO--ETC(U)
SEP 78

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UNCLASSIFIED

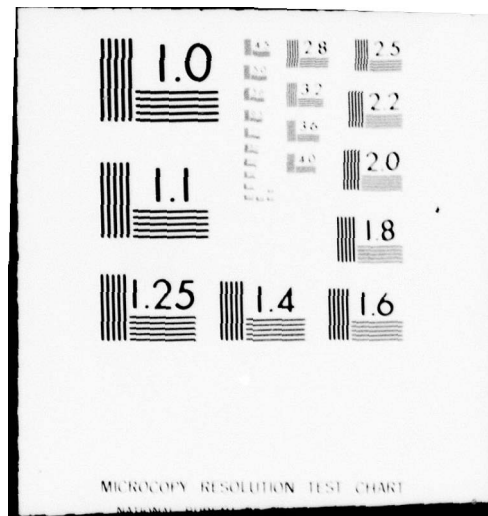
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TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....6 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:49: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.930	.946
43.0	.946	.939
44.0	.920	.949
45.0	.949	.939
46.0	.951	.963
47.0	.947	.942
48.0	.956	.949
49.0	.950	.932
50.0	.938	.922
51.0	.936	.933
52.0	.944	.929
53.0	.951	.935
54.0	.959	.950
55.0	.968	.970
56.0	.963	.926
57.0	.970	.951
58.0	.964	.941
59.0	.960	.960
60.0	.962	.943

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....6 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:49: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.7	1.026	.077	.10E+01
2.6	.911	.593	.88E+00
3.4	.760	1.250	.69E+00
4.3	.544	2.208	.43E+00
5.4	.442	2.666	.32E+00
6.5	.390	2.817	.27E+00
7.4	.285	3.024	.18E+00
8.5	.102	3.699	.43E-01
9.4	.046	3.926	.14E-01
10.8	.010	4.083	.17E-02
11.8	.046	4.191	.14E-01
12.8	.016	4.617	.35E-02
13.3	.029	4.513	.78E-02
14.3	.020	4.321	.44E-02
15.3	.013	4.194	.25E-02
16.7	.007	4.144	.98E-03
17.3	.023	3.963	.55E-02
18.7	.007	3.941	.98E-03
19.5	.010	3.958	.17E-02
20.7	.013	4.006	.25E-02
21.7	.016	4.054	.35E-02
22.6	.039	4.032	.12E-01
23.7	.046	4.113	.14E-01
24.7	.115	3.923	.51E-01
25.5	.088	4.115	.35E-01
26.6	.190	3.719	.10E+00
27.8	.203	3.709	.11E+00
28.8	.318	3.256	.21E+00
29.6	.436	2.757	.32E+00
30.6	.524	2.403	.41E+00
31.7	.544	2.333	.43E+00
32.8	.646	1.906	.55E+00
33.9	.734	1.536	.65E+00
34.8	.790	1.309	.72E+00
36.0	.849	1.067	.80E+00
37.1	.849	1.083	.80E+00
38.2	.914	.813	.88E+00
39.2	.950	.671	.93E+00
40.3	.944	.715	.92E+00
41.3	.911	.843	.88E+00
42.3	.868	1.028	.82E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....6 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:49: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/MM	CALCULATED TRANSMITTANCE (0.4-0.7)
43.2	.924	.770	.90E+00
44.2	.931	.710	.91E+00
45.2	.967	.537	.95E+00
46.1	.914	.750	.88E+00
47.1	.947	.607	.93E+00
47.9	.875	.906	.83E+00
49.0	.878	.876	.84E+00
50.0	.895	.789	.86E+00
50.9	.898	.775	.86E+00
51.9	.918	.673	.89E+00
52.9	.918	.658	.89E+00
53.9	.947	.498	.93E+00
54.9	.901	.698	.87E+00
55.9	.957	.439	.94E+00
56.8	.973	.368	.96E+00
57.8	.954	.469	.94E+00
58.8	.934	.571	.91E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 6, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 11:49:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.61	.990
2.67	.916
3.50	.743
4.54	.538
5.54	.453
6.54	.389
7.66	.297
8.56	.101
9.55	.033
10.52	.010
11.63	.010
12.57	.010
13.56	.010
14.53	.010
15.69	.010
16.70	.010
17.56	.010
18.72	.010
19.58	.010
20.69	.011
21.67	.011
22.64	.026
23.66	.037
24.73	.091
25.63	.079
26.66	.199
27.69	.155
28.72	.296
29.71	.439
30.67	.547
31.73	.549
32.64	.631
33.78	.736
34.91	.864
35.96	.882
36.97	.891
38.09	.900
39.16	.908
40.28	.979
41.27	.988

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 6, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 11:49:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

42.25	.943
43.07	.990
44.03	.960
45.14	.923
46.14	.918
46.97	.965
48.09	.960
48.92	.987
49.98	.955
50.92	.969
51.97	.924
52.91	.954
53.93	.930
54.90	.999
55.72	.922
56.78	.949
57.89	.927
58.74	.945

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....6 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:49: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	
1.0	.25772
2.0	.00000
3.0	.67245
4.0	4.59650
5.0	9.79742
6.0	13.44263
7.0	17.59495
8.0	23.42249
9.0	40.03135
10.0	69.43631
11.0	74.22809
12.0	101.58644
13.0	117.48894
14.0	121.66962
15.0	116.91380
16.0	110.94257
17.0	111.80841
18.0	92.94849
19.0	99.52921
20.0	108.28833
21.0	86.72678
22.0	82.48421
23.0	72.91512
24.0	68.43445
25.0	62.51521
26.0	43.55605
27.0	45.64282
28.0	33.90197
29.0	25.62685
30.0	25.51665
31.0	14.81420
32.0	12.83967
33.0	9.62002
34.0	7.05198
35.0	6.09986
36.0	3.79936
37.0	3.91356
38.0	2.73660
39.0	2.28598
40.0	1.75289
41.0	1.59701

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....6 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....11:49: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	1.35585
43.0	1.52900
44.0	1.28773
45.0	1.54227
46.0	.92257
47.0	1.45112
48.0	1.26936
49.0	1.72203
50.0	1.97146
51.0	1.70284
52.0	1.79092
53.0	1.64986
54.0	1.24557
55.0	.74518
56.0	1.87464
57.0	1.23218
58.0	1.47056
59.0	.99900
60.0	1.43014

VOLUME 2, SECTION 9

CONTENTS

TRIAL DPI-005-T7 (DUST) 16 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL 7. FT. SILL TESTS. 16 MAY 78, 12:20:00, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM. MIN/M**3)
	X(M)	Y(M)	Z(H)	
1	.00	.00	.00	.12500
2	.00	15.00	.00	.32700
3	.00	30.00	.00	.05817
4	.00	45.00	.00	.16833
5	.00	60.00	.00	.58183
6	.00	75.00	.00	.16733
7	.00	90.00	.00	.13983
8	.00	105.00	.00	.09217
9	.00	120.00	.00	.06583
10	.00	135.00	.00	.08467
11	.00	150.00	.00	.24083
12	.00	165.00	.00	.21367
13	.00	180.00	.00	.11083
14	.00	195.00	.00	.10600
15	.00	210.00	.00	.03083

DOSAGE ALONG SIGHT LINE= 37.68500 (GM. MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...7 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....12:20: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.005	1.017
2.0	1.002	.996
3.0	1.010	1.011
4.0	.994	.985
5.0	.962	.961
6.0	.950	.925
7.0	.937	.890
8.0	.899	.849
9.0	.839	.755
10.0	.153	.106
11.0	.009	.017
12.0	.003	.016
13.0	.013	.014
14.0	.042	.027
15.0	.069	.034
16.0	.030	.012
17.0	.023	.010
18.0	.024	.013
19.0	.030	.010
20.0	.084	.039
21.0	.084	.039
22.0	.051	.021
23.0	.085	.039
24.0	.070	.037
25.0	.121	.067
26.0	.113	.057
27.0	.084	.039
28.0	.113	.062
29.0	.126	.068
30.0	.131	.074
31.0	.157	.091
32.0	.084	.034
33.0	.172	.117
34.0	.340	.254
35.0	.260	.163
36.0	.431	.326
37.0	.448	.329
38.0	.659	.567
39.0	.677	.590
40.0	.736	.689
41.0	.785	.754

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....7 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....12:20: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.787	.736
43.0	.807	.781
44.0	.846	.832
45.0	.904	.909
46.0	.908	.908
47.0	.940	.956
48.0	.941	.947

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...7 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:20: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
.7	.978	.067	.97E+00
1.7	1.003	.000	.10E+01
2.7	.985	.042	.98E+00
3.6	.935	.217	.92E+00
4.6	.913	.293	.89E+00
5.5	.938	.205	.92E+00
6.5	.852	.490	.81E+00
7.2	.834	.458	.79E+00
8.1	.780	.333	.73E+00
8.9	.018	2.688	.57E-02
10.3	.018	2.688	.57E-02
11.2	.036	2.860	.14E-01
12.1	.018	3.157	.57E-02
12.5	.014	3.200	.43E-02
13.5	.029	3.041	.10E-01
14.9	.004	3.050	.72E-03
15.8	.022	3.082	.72E-02
16.6	.007	3.257	.18E-02
17.6	.007	3.319	.18E-02
18.5	.018	3.344	.57E-02
19.1	.022	3.410	.72E-02
20.0	.014	3.466	.43E-02
21.0	.018	3.407	.57E-02
22.1	.018	3.329	.57E-02
23.0	.018	3.282	.57E-02
24.0	.036	3.172	.14E-01
24.8	.040	3.097	.16E-01
25.7	.022	3.097	.72E-02
27.0	.022	3.050	.72E-02
27.9	.029	3.025	.10E-01
28.8	.054	2.985	.23E-01
29.8	.047	3.010	.20E-01
30.4	.022	3.097	.72E-02
31.8	.029	3.104	.10E-01
32.7	.162	2.703	.96E-01
33.5	.137	2.822	.77E-01
34.6	.169	2.725	.10E+00
35.6	.255	2.441	.17E+00
36.5	.302	2.262	.21E+00
37.4	.467	1.687	.38E+00
38.5	.539	1.437	.45E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...7 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:20: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
39.3	.633	1.096	.56E+00
40.4	.683	.921	.61E+00
41.2	.676	.930	.60E+00
42.2	.730	.743	.67E+00
43.1	.740	.690	.68E+00
44.2	.917	.077	.89E+00
45.2	.931	.027	.91E+00
46.1	.999	.000	.10E+01
47.1	.935	.000	.92E+00
48.0	.917	.030	.89E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 7, FT. SILL TESTS
 DATE: 16 MAY 1978
 SMOKE: DT
 FUNCTION TIME 12:20:00

TIME AFTER FUNCTION
 (SECONDS)

TRANSMITTANCE
 (0.4-0.7)

.77	.962
1.65	1.042
2.65	.989
3.62	.935
4.54	.904
5.35	.822
6.42	.800
7.35	.752
8.19	.720
9.16	.010
10.16	.010
11.05	.010
11.99	.010
12.93	.010
13.72	.015
14.66	.010
15.72	.010
16.65	.010
17.43	.010
18.51	.010
19.31	.014
20.30	.010
21.32	.010
22.23	.021
23.11	.016
24.00	.025
24.96	.029
25.92	.012
26.98	.017
27.89	.021
28.88	.035
29.74	.042
30.67	.017
31.76	.018
32.71	.151
33.52	.134
34.56	.157
35.42	.209
36.50	.284
37.36	.430

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 7, FT. SILL TESTS
DATE: 16 MAY 1978
SMOKE: DT
FUNCTION TIME 12:20:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

38.45	.442
39.28	.593
40.36	.626
41.31	.634
42.14	.702
43.21	.741
44.19	.833
45.01	.810
46.06	.885
46.96	.895
47.90	.914
48.91	.854
49.96	.921
50.89	.921
51.74	.893
52.69	.928
53.65	.929
54.66	.885
55.59	.912
56.57	.896
57.64	.887
58.47	.872

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....7 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:20: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.10660
3.0	.00000
4.0	.37792
5.0	.99883
6.0	1.95925
7.0	2.93002
8.0	4.09822
9.0	7.03630
10.0	56.25134
11.0	101.66684
12.0	104.16675
13.0	106.44351
14.0	90.76389
15.0	84.51071
16.0	110.24774
17.0	114.20332
18.0	109.21274
19.0	116.18228
20.0	81.15565
21.0	81.00026
22.0	97.16069
23.0	81.19287
24.0	82.53326
25.0	67.74498
26.0	71.88356
27.0	81.15562
28.0	69.64603
29.0	67.49110
30.0	65.40959
31.0	60.13673
32.0	84.73874
33.0	53.75392
34.0	34.35413
35.0	45.43892
36.0	28.06984
37.0	27.86477
38.0	14.21702
39.0	13.22808
40.0	9.33072
41.0	7.08985

CL VALUES (CM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...7 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:20: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	7.68867
43.0	6.20892
44.0	4.61487
45.0	2.40052
46.0	2.43162
47.0	1.11460
48.0	1.37241

VOLUME 2, SECTION 10

CONTENTS

TRIAL DPI-005-T8 (DUST) 16 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4- 0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....8 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....12:29: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.994	1.000
2.0	.994	1.011
3.0	.989	.992
4.0	1.015	1.006
5.0	.992	.959
6.0	.868	.829
7.0	.967	.949
8.0	.979	.924
9.0	.955	.940
10.0	.951	.924
11.0	.934	.881
12.0	.902	.844
13.0	.526	.376
14.0	.016	.009
15.0	.010	.020
16.0	.007	.013
17.0	.003	.008
18.0	.004	.006
19.0	.005	.006
20.0	.003	.010
21.0	.005	.005
22.0	.012	.009
23.0	.024	.011
24.0	.036	.014
25.0	.111	.071
26.0	.239	.172
27.0	.277	.183
28.0	.262	.168
29.0	.266	.169
30.0	.324	.222
31.0	.371	.275
32.0	.509	.388
33.0	.617	.529
34.0	.625	.496
35.0	.654	.579
36.0	.669	.563
37.0	.666	.602
38.0	.699	.585
39.0	.650	.544
40.0	.679	.563
41.0	.624	.524

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....8 (DP1-005)

DATE OF TRIAL...16 MAY 1978

FIRE-TIME.....12:29: 0

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
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42.0	.767	.736
43.0	.830	.793
44.0	.841	.815
45.0	.802	.746
46.0	.888	.894
47.0	.918	.921
48.0	.914	.915
49.0	.939	.925
50.0	.952	.961
51.0	.969	.966
52.0	.957	.951
53.0	.957	.954
54.0	.987	1.013
55.0	.972	.997
56.0	.972	.982
57.0	.975	.982
58.0	.981	.980
59.0	.987	.980
60.0	.982	1.002
61.0	.987	1.003
62.0	.986	1.002
63.0	.993	.973
64.0	.992	.985
65.0	.997	.981
66.0	.999	.979
67.0	1.015	1.017
68.0	.989	.978
69.0	.874	.961
70.0	.994	1.017
71.0	1.000	1.006
72.0	1.011	.980
73.0	1.003	1.032
74.0	1.003	1.039
75.0	1.008	1.033
76.0	1.011	1.031
77.0	.994	.995
78.0	1.005	1.007
79.0	.993	1.008
80.0	1.004	.990
81.0	1.002	1.005
82.0	1.017	.987

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....8 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....12:29: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
83.0	1.003	1.005
84.0	.999	1.012
85.0	1.015	1.008
86.0	.996	1.010
87.0	1.002	1.035
88.0	1.007	1.026
89.0	.999	.993
90.0	.999	1.012

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.5	.975	.092	.97E+00
2.5	.975	.076	.97E+00
3.4	.965	.125	.96E+00
4.3	.900	.436	.89E+00
5.4	.944	.224	.94E+00
6.2	.886	.501	.88E+00
7.3	.917	.354	.91E+00
8.3	.924	.322	.92E+00
9.3	.865	.584	.85E+00
10.2	.924	.243	.92E+00
11.0	.824	.389	.81E+00
11.9	.553	1.228	.52E+00
13.3	.017	3.684	.12E-01
14.2	.034	3.853	.25E-01
15.2	.010	4.155	.68E-02
15.8	.007	4.218	.44E-02
16.6	.007	4.187	.44E-02
18.1	.007	4.171	.44E-02
19.1	.014	4.232	.93E-02
20.0	.014	4.326	.93E-02
20.5	.021	4.246	.15E-01
21.5	.021	4.043	.15E-01
22.4	.003	4.018	.18E-02
23.9	.041	3.961	.31E-01
24.8	.117	3.835	.96E-01
25.7	.113	3.992	.93E-01
26.7	.096	4.152	.78E-01
27.6	.089	4.216	.72E-01
28.7	.106	4.150	.87E-01
29.5	.240	3.513	.21E+00
30.5	.292	3.283	.26E+00
31.6	.381	2.858	.35E+00
32.6	.388	2.810	.36E+00
33.5	.433	2.597	.40E+00
34.5	.460	2.482	.43E+00
35.3	.539	2.106	.51E+00
36.4	.608	1.779	.58E+00
37.2	.450	2.547	.42E+00
38.4	.457	2.514	.43E+00
39.3	.402	2.775	.37E+00
40.3	.639	1.632	.61E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
41.3	.779	.946	.76E+00
42.2	.721	1.224	.70E+00
43.1	.735	1.158	.71E+00
44.1	.700	1.306	.68E+00
45.1	.872	.489	.86E+00
46.0	.879	.456	.87E+00
47.0	.931	.211	.92E+00
47.9	.879	.456	.87E+00
49.0	.948	.129	.94E+00
50.0	.934	.194	.93E+00
50.8	.910	.309	.90E+00
51.8	.924	.259	.92E+00
52.9	1.013	.000	.10E+01
53.9	.992	.000	.99E+00
54.8	.955	.128	.95E+00
55.8	.975	.030	.97E+00
56.8	.986	.000	.98E+00
57.8	.941	.193	.94E+00
58.7	.937	.209	.93E+00
59.7	.951	.160	.95E+00
60.6	.999	.000	.10E+01
61.6	.986	.000	.98E+00
62.6	.992	.000	.99E+00
63.4	1.023	.000	.10E+01
64.6	1.071	.000	.11E+01
65.5	.996	.000	.10E+01
66.6	.968	.031	.97E+00
67.5	.992	.000	.99E+00
68.5	.958	.346	.95E+00
69.4	.961	.064	.96E+00
70.3	.951	.128	.95E+00
71.3	.999	.000	.10E+01
72.3	.958	.080	.95E+00
73.2	1.023	.000	.10E+01
74.3	1.044	.000	.10E+01
75.2	1.027	.000	.10E+01
76.1	.948	.129	.94E+00
77.2	.999	.000	.10E+01
78.2	.989	.000	.99E+00
79.1	.961	.064	.96E+00
80.1	1.006	.000	.10E+01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
80.9	.965	.047	.96E+00
82.1	1.037	.000	.10E+01
83.0	1.023	.000	.10E+01
84.0	1.016	.000	.10E+01
85.0	1.010	.000	.10E+01
86.1	1.030	.000	.10E+01
87.0	.968	.015	.97E+00
87.9	1.034	.000	.10E+01
88.9	1.013	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 8, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 12:29:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.49	1.048
2.50	.966
3.32	.951
4.42	.874
5.37	.883
6.35	.965
7.19	.970
8.28	.996
9.16	.980
10.09	.905
11.08	.798
12.03	.497
13.04	.010
14.00	.010
15.07	.010
16.05	.010
16.88	.010
17.90	.010
18.92	.010
19.92	.010
20.83	.010
21.74	.010
22.71	.010
23.70	.025
24.69	.116
25.79	.119
26.67	.084
27.60	.084
28.68	.074
29.63	.197
30.54	.290
31.62	.296
32.51	.359
33.57	.413
34.40	.481
35.48	.558
36.36	.582
37.41	.449
38.28	.469
39.35	.410

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 8, FT. SILL TESTS
DATE: 16 MAY 1978
SMOKE: DT
FUNCTION TIME 12:29:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

40.28	.603
41.26	.739
42.14	.677
43.07	.749
44.01	.693
45.12	.889
46.01	.879
47.04	.906
48.01	.854
49.00	.896
49.84	.887
50.82	.899
51.90	.977
52.72	1.004
53.74	1.004
54.87	.963
55.85	1.011
56.76	1.015
57.76	1.064
58.75	1.015
59.61	.989
60.55	1.004
61.53	1.026
62.50	1.007
63.60	1.060
64.46	1.002
65.55	.923
66.44	.976
67.39	1.025
69.47	1.026
70.34	1.048
71.25	.973
72.36	1.028
73.34	1.028
74.19	.943
75.30	.951
76.26	1.031
77.08	1.041
78.16	1.012
79.04	.989

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 8, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 12:29:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

79.99	.911
81.06	.927
81.95	.970
82.99	.763
83.96	.858
85.04	.933
86.08	.997
86.97	1.072
87.96	.915
88.93	.891

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00785
2.0	.00000
3.0	.19620
4.0	.00000
5.0	1.01303
6.0	4.57797
7.0	1.28567
8.0	1.91904
9.0	1.50381
10.0	1.91772
11.0	3.09704
12.0	4.13675
13.0	23.84612
14.0	116.17593
15.0	94.98433
16.0	106.69862
17.0	118.16954
18.0	124.93498
19.0	124.94835
20.0	111.69684
21.0	129.38513
22.0	115.56410
23.0	110.35899
24.0	104.38412
25.0	64.67191
26.0	42.93913
27.0	41.38676
28.0	43.53722
29.0	43.40025
30.0	36.65833
31.0	31.51875
32.0	23.10237
33.0	15.54748
34.0	17.12225
35.0	13.31871
36.0	14.01055
37.0	12.37496
38.0	13.05622
39.0	14.87028
40.0	13.99718
41.0	15.76556

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	7.46329
43.0	5.66610
44.0	4.97697
45.0	7.15169
46.0	2.74553
47.0	2.01183
48.0	2.17121
49.0	1.91039
50.0	.96307
51.0	.85469
52.0	1.22033
53.0	1.14626
54.0	.00000
55.0	.07569
56.0	.45416
57.0	.44986
58.0	.49157
59.0	.48965
60.0	.00000
61.0	.00000
62.0	.00000
63.0	.67898
64.0	.36282
65.0	.47718
66.0	.52711
67.0	.00000
68.0	.55452
69.0	.96405
70.0	.00000
71.0	.00000
72.0	.49445
73.0	.00000
74.0	.00000
75.0	.00000
76.0	.00000
77.0	.12670
78.0	.00000
79.0	.00000
80.0	.24951
81.0	.00000
82.0	.32036

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...8 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:29: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

83.0	.00000
84.0	.00000
85.0	.00000
86.0	.00000
87.0	.00000
88.0	.00000
89.0	.17971
90.0	.00000

VOLUME 2, SECTION 11

CONTENTS

TRIAL DPI-005-T9 (DUST) 16 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....9 (DP1-005)

DATE OF TRIAL...16 MAY 1978

FIRE-TIME.....12:57: 2

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
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1.0	1.003	1.015
2.0	1.002	1.020
3.0	1.005	1.003
4.0	.996	1.015
5.0	.995	.989
6.0	.990	1.003
7.0	.998	1.000
8.0	1.001	.992
9.0	.979	.952
10.0	.981	.987
11.0	.966	.981
12.0	.977	.984
13.0	.975	.961
14.0	.941	.928
15.0	.941	.892
16.0	.320	.170
17.0	.083	.046
18.0	.064	.050
19.0	.051	.033
20.0	.028	.019
21.0	.065	.037
22.0	.024	.014
23.0	.032	.014
24.0	.036	.018
25.0	.045	.022
26.0	.047	.026
27.0	.139	.096
28.0	.152	.088
29.0	.082	.040
30.0	.150	.107
31.0	.269	.188
32.0	.306	.222
33.0	.425	.339
34.0	.543	.446
35.0	.492	.401
36.0	.747	.711
37.0	.696	.589
38.0	.721	.656
39.0	.739	.669
40.0	.758	.700
41.0	.845	.866

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...9 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....12:57: 2
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.840	.813
43.0	.882	.854
44.0	.844	.807
45.0	.858	.843
46.0	.902	.870
47.0	.900	.883
48.0	.938	.963
49.0	.951	.950
50.0	.945	.958
51.0	.958	.975
52.0	.963	.970
53.0	.943	.919
54.0	.950	.936
55.0	.962	.979
56.0	.966	.978
57.0	.988	.983
58.0	.986	.982
59.0	.969	.966

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...9 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:57: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.6	.988	.041	.98E+00
2.9	1.001	.000	.10E+01
4.0	.985	.088	.98E+00
5.2	.995	.040	.99E+00
6.4	.981	.103	.97E+00
7.7	.991	.056	.99E+00
8.7	.968	.182	.95E+00
9.9	.998	.040	.10E+01
11.2	.995	.056	.99E+00
12.1	.941	.324	.92E+00
13.4	.900	.450	.86E+00
14.4	.883	.138	.84E+00
15.6	.095	3.388	.35E-01
16.6	.034	3.421	.82E-02
17.8	.014	3.359	.22E-02
19.5	.030	3.359	.71E-02
20.8	.027	3.609	.60E-02
21.9	.017	3.844	.31E-02
23.1	.014	4.016	.22E-02
24.2	.010	4.157	.15E-02
25.3	.017	4.219	.31E-02
26.3	.064	4.076	.20E-01
27.2	.047	4.186	.13E-01
28.7	.037	4.281	.94E-02
29.7	.139	3.917	.61E-01
30.9	.132	3.980	.57E-01
31.7	.233	3.492	.13E+00
32.9	.389	2.767	.26E+00
34.2	.480	2.357	.35E+00
35.3	.680	1.459	.58E+00
36.4	.548	2.105	.43E+00
37.5	.545	2.120	.42E+00
38.5	.626	1.742	.51E+00
39.7	.792	.970	.72E+00
40.8	.792	.970	.72E+00
41.9	.870	.608	.82E+00
43.1	.836	.765	.78E+00
44.1	.886	.513	.84E+00
45.3	.859	.639	.81E+00
46.4	.924	.340	.89E+00
47.6	.964	.151	.95E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....9 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:57: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
48.6	.971	.119	.96E+00
49.8	.961	.167	.94E+00
51.0	.968	.135	.95E+00
52.0	.930	.324	.90E+00
53.4	.957	.198	.94E+00
54.5	.991	.041	.99E+00
55.6	.998	.009	.10E+01
56.7	1.008	.000	.10E+01
57.7	.988	.056	.98E+00
59.1	1.022	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 9, FT. SILL TESTS
DATE: 16 MAY 1978
SMOKE: DT
FUNCTION TIME 12:57:02

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
1.58	1.005
2.95	1.038
4.15	1.020
5.32	1.013
6.42	.956
7.72	.960
8.76	.957
9.95	.943
11.09	.987
12.34	.961
13.31	.874
14.50	.915
15.74	.075
16.92	.010
18.10	.010
19.47	.010
20.60	.010
21.72	.010
23.05	.010
24.02	.010
25.12	.010
26.25	.056
27.37	.036
28.65	.026
29.77	.119
30.87	.107
31.82	.209
32.94	.402
34.20	.424
35.17	.584
36.42	.468
37.37	.548
38.64	.640
39.75	.737
40.71	.743
41.86	.808
43.10	.721
44.11	.787
45.20	.821
46.43	.862

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 9, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 12:57:02

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

47.45	.934
48.73	.769
49.86	.934
50.98	.987
52.20	.899
53.43	.999
54.42	.993
55.61	.969
56.68	.991
57.97	.989
58.94	1.015

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....9 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:57: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.00000
4.0	.00000
5.0	.26810
6.0	.00000
7.0	.00169
8.0	.19217
9.0	1.19417
10.0	.31357
11.0	.47483
12.0	.39826
13.0	.97080
14.0	1.83271
15.0	2.79254
16.0	43.27665
17.0	75.10909
18.0	72.89931
19.0	82.91272
20.0	96.79976
21.0	80.58810
22.0	103.26120
23.0	103.46407
24.0	97.91510
25.0	93.09084
26.0	89.25021
27.0	57.21725
28.0	59.24065
29.0	78.40619
30.0	54.40461
31.0	40.76881
32.0	36.66161
33.0	26.38617
34.0	19.68783
35.0	22.27777
36.0	8.33439
37.0	12.89967
38.0	10.27914
39.0	9.78663
40.0	8.70602
41.0	3.51935

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....9 (DPI-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....12:57: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	5.03746
43.0	3.84138
44.0	5.22173
45.0	4.16826
46.0	3.40948
47.0	3.03766
48.0	.93044
49.0	1.24957
50.0	1.05665
51.0	.62429
52.0	.73611
53.0	2.04979
54.0	1.61333
55.0	.51542
56.0	.53653
57.0	.42799
58.0	.45531
59.0	.83855

VOLUME 2, SECTION 12

CONTENTS

TRIAL DPI-005-T10 (DUST) 16 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....10 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....13: 7: 2
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.005	.983
2.0	1.003	.983
3.0	.992	1.011
4.0	.994	.977
5.0	.989	.983
6.0	.999	.987
7.0	.997	.985
8.0	.997	.994
9.0	.993	.988
10.0	.977	.965
11.0	.985	.956
12.0	.977	.947
13.0	.969	.946
14.0	.971	.963
15.0	.560	.403
16.0	.154	.103
17.0	.079	.054
18.0	.034	.023
19.0	.019	.009
20.0	.016	.009
21.0	.014	.009
22.0	.010	.008
23.0	.017	.008
24.0	.025	.014
25.0	.096	.049
26.0	.076	.039
27.0	.157	.096
28.0	.266	.186
29.0	.384	.278
30.0	.533	.428
31.0	.633	.518
32.0	.664	.548
33.0	.737	.671
34.0	.760	.702
35.0	.829	.805
36.0	.841	.827
37.0	.866	.867
38.0	.893	.881
39.0	.905	.894
40.0	.923	.924
41.0	.930	.937

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....10 (DP1-005)

DATE OF TRIAL...16 MAY 1978

FIRE-TIME.....13: 7: 2

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.930	.940
43.0	.947	.924
44.0	.937	.952
45.0	.958	.949
46.0	.950	.951
47.0	.959	.988
48.0	.964	1.033
49.0	.958	.981
50.0	.972	1.001
51.0	.953	.949
52.0	.962	.953
53.0	.957	.966
54.0	.969	.983
55.0	.977	1.032
56.0	.978	1.023
57.0	.973	.931
58.0	.977	.988
59.0	.971	.966
60.0	.965	.979
61.0	.971	1.011
62.0	.967	.977
63.0	.977	.974
64.0	.983	.953
65.0	.984	.969
66.0	.990	.979
67.0	.981	.967
68.0	.984	.977
69.0	.975	.973
70.0	.987	.993
71.0	.990	.963
72.0	.974	.985
73.0	.989	1.008
74.0	.982	.972
75.0	.975	.985

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...10 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13: 7: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NN	CALCULATED TRANSMITTANCE (0.4-0.7)
1.7	.984	.037	.98E+00
2.9	.997	.000	.10E+01
3.9	1.025	.000	.10E+01
5.1	.966	.074	.96E+00
6.1	.975	.016	.97E+00
7.2	.987	.000	.99E+00
8.4	1.006	.000	.10E+01
9.5	.909	.295	.90E+00
10.7	.972	.000	.97E+00
11.7	.962	.000	.96E+00
12.8	.934	.000	.93E+00
13.6	.621	1.131	.59E+00
14.8	.103	3.319	.83E-01
16.0	.044	3.711	.32E-01
17.0	.009	4.005	.59E-02
18.6	.009	4.084	.59E-02
19.5	.006	4.176	.38E-02
20.6	.006	4.223	.38E-02
21.8	.006	4.270	.38E-02
22.9	.006	4.316	.38E-02
24.0	.019	4.276	.13E-01
25.0	.016	4.290	.10E-01
26.2	.069	4.052	.53E-01
27.3	.163	3.647	.14E+00
28.4	.213	3.422	.18E+00
29.5	.376	2.694	.34E+00
30.7	.495	2.177	.46E+00
31.8	.599	1.714	.57E+00
32.8	.683	1.335	.66E+00
33.8	.746	1.071	.72E+00
34.8	.749	1.072	.73E+00
35.7	.774	.960	.75E+00
36.5	.777	.946	.76E+00
37.6	.865	.554	.85E+00
38.6	.868	.555	.86E+00
39.4	.884	.485	.87E+00
40.4	.937	.247	.93E+00
41.4	.900	.415	.89E+00
42.3	.881	.484	.87E+00
43.2	.962	.119	.96E+00
44.3	.956	.147	.95E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....10 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13: 7: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
45.2	.915	.329	.91E+00
46.1	.931	.259	.92E+00
47.1	1.013	.000	.10E+01
48.0	.925	.287	.92E+00
49.0	.950	.175	.95E+00
49.9	.944	.203	.94E+00
50.8	.918	.315	.91E+00
51.8	.906	.371	.90E+00
52.7	.950	.175	.95E+00
53.6	.947	.189	.94E+00
54.3	.918	.315	.91E+00
55.2	.922	.301	.91E+00
56.1	.937	.231	.93E+00
57.1	.934	.245	.93E+00
57.9	.937	.231	.93E+00
58.7	.981	.035	.98E+00
59.6	.962	.135	.96E+00
60.5	.931	.259	.92E+00
61.4	.947	.189	.94E+00
62.4	.915	.345	.91E+00
63.3	.909	.373	.90E+00
64.3	.925	.303	.92E+00
65.3	1.006	.000	.10E+01
66.1	.931	.275	.92E+00
67.1	.940	.248	.93E+00
68.1	.922	.333	.91E+00
69.0	.956	.163	.95E+00
70.0	.912	.359	.90E+00
70.9	.918	.331	.91E+00
71.9	.950	.191	.95E+00
72.7	.940	.233	.93E+00
73.8	.937	.247	.93E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 10, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 13:07:02

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.64	.973
2.91	.983
3.92	.916
5.08	1.011
6.27	.996
7.22	.964
8.29	.961
9.56	.981
10.52	.967
11.79	.945
12.90	.888
13.92	.441
14.95	.084
16.10	.036
17.16	.010
18.41	.010
19.52	.010
20.55	.010
21.69	.010
22.75	.010
23.94	.015
25.07	.011
26.18	.052
27.29	.130
28.41	.180
29.37	.386
30.66	.532
31.80	.561
32.72	.567
33.90	.699
34.72	.746
35.79	.774
36.64	.768
37.53	.797
38.54	.922
39.57	.858
40.41	.847
41.38	.867
42.27	.880
43.29	.807

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 10, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 13:07:02

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

44.25	.924
45.18	.816
46.24	.908
47.04	.953
48.03	.975
49.07	1.002
49.90	.849
50.95	.735
51.81	.832
52.63	.907
53.54	.978
54.35	.826
55.31	.960
56.09	.886
57.12	.907
57.87	.975
58.80	.872
59.71	.862
60.48	.874
61.56	.948
62.41	.974
63.38	.939
64.29	.882
65.34	.898
66.15	1.007
67.08	.982
68.09	.926
69.09	.931
70.02	.964
70.88	1.024
71.81	.924
72.81	.997
73.66	.971

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....10 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13: 7: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.42667
2.0	.42322
3.0	.00000
4.0	.57590
5.0	.40599
6.0	.31444
7.0	.37204
8.0	.14259
9.0	.28928
10.0	.88065
11.0	1.10806
12.0	1.33710
13.0	1.36104
14.0	.92134
15.0	22.15458
16.0	55.37070
17.0	71.27635
18.0	91.93916
19.0	114.55859
20.0	114.70039
21.0	115.34956
22.0	116.58603
23.0	117.26152
24.0	104.37027
25.0	73.42886
26.0	78.89108
27.0	57.24139
28.0	41.05111
29.0	31.18345
30.0	20.70176
31.0	16.03990
32.0	14.65057
33.0	9.73804
34.0	8.61991
35.0	5.30324
36.0	4.64319
37.0	3.48709
38.0	3.08808
39.0	2.74599
40.0	1.91959
41.0	1.57866

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....10 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13: 7: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	1.49769
43.0	1.94038
44.0	1.18824
45.0	1.26919
46.0	1.21926
47.0	.28863
48.0	.00000
49.0	.47302
50.0	.00000
51.0	1.26925
52.0	1.16893
53.0	.83351
54.0	.41386
55.0	.00000
56.0	.00000
57.0	1.74915
58.0	.29576
59.0	.85507
60.0	.50858
61.0	.00000
62.0	.57888
63.0	.64043
64.0	1.17961
65.0	.75977
66.0	.50711
67.0	.82700
68.0	.56709
69.0	.66280
70.0	.17183
71.0	.92737
72.0	.36615
73.0	.00000
74.0	.69614
75.0	.37647

VOLUME 2, SECTION 13

CONTENTS

TRIAL DPI-005-T11 (DUST) 16 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL 11. FT. SILL TESTS, 16 MAY 78, 13:42:00, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM. MIN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.03533
2	.00	15.00	.00	.01133
3	.00	30.00	.00	.03900
4	.00	45.00	.00	.08733
5	.00	60.00	.00	.24183
6	.00	75.00	.00	.13033
7	.00	90.00	.00	.02933
8	.00	105.00	.00	.00833
9	.00	120.00	.00	.01383
10	.00	135.00	.00	.00000
11	.00	150.00	.00	.00000
12	.00	165.00	.00	.00550
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00000
15	.00	210.00	.00	.00000

DOSAGE ALONG SIGHT LINE= 9.03250 (GM. MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....11 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....13:42: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.002	.998
2.0	.994	1.009
3.0	.993	.999
4.0	.970	.961
5.0	.960	.933
6.0	.959	.926
7.0	.944	.900
8.0	.927	.897
9.0	.925	.896
10.0	.909	.873
11.0	.862	.797
12.0	.787	.715
13.0	.191	.117
14.0	.067	.051
15.0	.078	.060
16.0	.057	.048
17.0	.102	.070
18.0	.031	.029
19.0	.017	.020
20.0	.028	.026
21.0	.061	.032
22.0	.057	.035
23.0	.065	.039
24.0	.045	.022
25.0	.062	.035
26.0	.049	.031
27.0	.056	.029
28.0	.110	.067
29.0	.148	.091
30.0	.181	.111
31.0	.247	.163
32.0	.330	.226
33.0	.313	.218
34.0	.468	.381
35.0	.617	.523
36.0	.673	.575
37.0	.721	.663
38.0	.767	.714
39.0	.812	.770

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...11 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13:42: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.0	1.046	.000	.11E+01
2.1	.964	.136	.95E+00
3.0	1.000	.000	.10E+01
3.9	1.017	.000	.10E+01
4.9	.918	.356	.90E+00
5.8	.888	.487	.86E+00
6.8	.872	.560	.84E+00
7.8	.902	.444	.87E+00
8.8	.888	.456	.86E+00
9.7	.865	.448	.83E+00
10.6	.796	.583	.75E+00
11.6	.467	1.915	.37E+00
12.3	.033	3.824	.12E-01
13.7	.053	3.814	.22E-01
14.4	.016	4.053	.50E-02
15.6	.033	4.042	.12E-01
16.2	.046	3.922	.19E-01
17.1	.020	3.866	.63E-02
18.1	.023	3.649	.77E-02
19.4	.007	3.628	.15E-02
20.5	.030	3.698	.11E-01
21.3	.030	3.979	.11E-01
22.0	.016	4.225	.50E-02
23.1	.010	4.332	.26E-02
24.2	.010	4.348	.26E-02
25.1	.007	4.362	.15E-02
26.1	.010	4.348	.26E-02
27.1	.026	4.290	.92E-02
28.0	.053	4.189	.22E-01
29.0	.079	4.073	.38E-01
30.0	.125	3.884	.68E-01
30.9	.155	3.753	.90E-01
31.9	.141	3.796	.80E-01
32.8	.244	3.344	.16E+00
33.8	.411	2.585	.32E+00
34.7	.434	2.483	.34E+00
35.7	.530	2.060	.44E+00
36.5	.652	1.521	.58E+00
37.6	.661	1.477	.59E+00
38.4	.731	1.171	.67E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 11, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 13:42:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.03	.984
1.95	.962
3.04	.994
4.02	.889
5.00	.933
5.82	.954
6.74	.939
7.84	.887
8.71	.855
9.74	.834
10.75	.748
11.62	.408
12.56	.019
13.66	.033
14.48	.016
15.61	.017
16.57	.024
17.54	.010
18.35	.010
19.42	.010
20.35	.013
21.34	.010
22.15	.010
23.22	.010
24.21	.010
25.01	.010
26.11	.010
26.92	.026
28.03	.047
29.00	.074
29.97	.115
30.92	.154
31.92	.137
32.88	.244
33.83	.405
34.76	.456
35.72	.524
36.66	.669
37.55	.679
38.50	.759

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 11, FT. SILL TESTS

DATE: 16 MAY 1978

SMOKE: DT

FUNCTION TIME 13:42:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

39.42	.777
40.34	.906
41.34	.899
42.13	.877
43.23	.956
44.15	.977
45.07	.966
46.12	.922
47.07	1.039
47.91	.950
48.89	.965
49.87	.997
50.87	.985
51.91	.985
52.76	.966
53.68	.997
54.68	.949
55.72	.995
56.67	.988
57.52	1.010
58.62	1.000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....11 (DP1-005)
DATE OF TRIAL...16 MAY 1978
FIRE-TIME.....13:42: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.05925
2.0	.00000
3.0	.02175
4.0	.96195
5.0	1.69639
6.0	1.86476
7.0	2.55971
8.0	2.66469
9.0	2.67194
10.0	3.32340
11.0	5.52000
12.0	8.17011
13.0	52.26056
14.0	72.36682
15.0	68.52632
16.0	73.85776
17.0	64.86061
18.0	86.67322
19.0	95.39180
20.0	88.88409
21.0	84.20262
22.0	82.01326
23.0	78.82387
24.0	93.38983
25.0	82.00250
26.0	84.47707
27.0	85.94612
28.0	66.06262
29.0	58.57088
30.0	53.70599
31.0	44.18109
32.0	36.25119
33.0	37.12117
34.0	23.51697
35.0	15.80072
36.0	13.51201
37.0	10.01178
38.0	8.22244
39.0	6.38347

VOLUME 2, SECTION 14

CONTENTS

TRIAL DPI-005-T12 (DUST) 17 MAY 1978

TABLE: DOSAGE AT INDICATED SAMPLING POSITION

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRIAL 12. FT. SILL TESTS, 17 MAY 78, 09:21:00, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM./MIN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.00000
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.03650
6	.00	75.00	.00	.00000
7	.00	90.00	.00	.00000
8	.00	105.00	.00	.17900
9	.00	120.00	.00	.18400
10	.00	135.00	.00	.00000
11	.00	150.00	.00	.01267
12	.00	165.00	.00	.00050
13	.00	180.00	.00	.00100
14	.00	195.00	.00	.00433
15	.00	210.00	.00	.01433

DOSAGE ALONG SIGHT LINE= 6.48500 (GM./MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....12 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME..... 9:31: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.000	.998
2.0	.998	.997
3.0	1.015	.991
4.0	1.010	.999
5.0	1.002	.992
6.0	.985	.954
7.0	.991	1.008
8.0	.963	.945
9.0	.407	.240
10.0	.215	.112
11.0	.222	.142
12.0	.253	.156
13.0	.247	.157
14.0	.339	.235
15.0	.562	.421
16.0	.576	.432
17.0	.584	.446
18.0	.714	.617
19.0	.793	.742
20.0	.806	.735
21.0	.818	.755
22.0	.957	.958
23.0	.949	.939
24.0	.958	.939
25.0	.961	.971
26.0	.960	.970
27.0	.975	.985
28.0	.976	.990
29.0	.979	.979
30.0	.983	.991
31.0	.984	.999
32.0	.983	.993
33.0	.985	.992
34.0	.984	.993
35.0	.987	.994
36.0	.989	.988
37.0	.991	.989
38.0	.990	.999
39.0	.991	1.004
40.0	.991	.993
41.0	.993	1.004

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...12 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME..... 9:21: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 2.750	WAVE-LENGTH 3.443
42.0	.991	1.002
43.0	.992	1.001
44.0	.992	.998
45.0	.993	.993
46.0	.993	.999
47.0	.999	.991
48.0	.999	1.007
49.0	.998	1.007
50.0	.995	1.000
51.0	.997	.986
52.0	.995	.986
53.0	.996	.970
54.0	.996	.986
55.0	.995	1.002
56.0	.995	.997
57.0	.997	.995
58.0	.995	.995
59.0	.995	.989

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...12 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:21: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.0	1.003	.000	.10E+01
2.1	.979	.010	.98E+00
3.2	.994	.016	.99E+00
4.2	.951	.045	.95E+00
5.2	.965	.020	.96E+00
6.1	.971	.016	.97E+00
7.2	.936	.008	.93E+00
8.2	.277	.391	.25E+00
9.0	.035	.524	.25E-01
10.4	.075	.512	.59E-01
11.3	.052	.543	.39E-01
12.5	.121	.512	.99E-01
13.5	.257	.436	.23E+00
14.6	.283	.434	.25E+00
15.4	.344	.408	.31E+00
16.6	.552	.268	.52E+00
17.7	.711	.176	.69E+00
18.6	.685	.194	.66E+00
19.4	.644	.221	.62E+00
20.7	.945	.018	.94E+00
21.7	.939	.037	.93E+00
22.7	.939	.037	.93E+00
23.7	.933	.057	.93E+00
24.9	.965	.035	.96E+00
25.9	.979	.026	.98E+00
26.9	.985	.022	.98E+00
28.0	.991	.018	.99E+00
29.0	.982	.024	.98E+00
30.0	.974	.030	.97E+00
31.1	.968	.033	.96E+00
32.0	.977	.028	.97E+00
33.1	.979	.026	.98E+00
34.2	.991	.018	.99E+00
35.2	1.005	.008	.10E+01
36.3	.997	.014	.10E+01
37.3	.988	.020	.99E+00
38.3	.982	.024	.98E+00
39.3	.988	.020	.99E+00
40.4	1.000	.012	.10E+01
41.5	.991	.018	.99E+00
42.5	1.000	.012	.10E+01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...12 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:21: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
43.6	.997	.014	.10E+01
44.6	1.014	.002	.10E+01
45.6	.994	.016	.99E+00
46.6	1.000	.012	.10E+01
47.7	1.003	.010	.10E+01
48.7	.994	.016	.99E+00
49.8	1.000	.012	.10E+01
50.8	.988	.020	.99E+00
51.8	.974	.030	.97E+00
52.9	.982	.024	.98E+00
53.9	.979	.026	.98E+00
54.9	1.005	.008	.10E+01
55.9	.988	.020	.99E+00
57.0	.997	.014	.10E+01
58.1	.985	.022	.98E+00
59.1	.994	.016	.99E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 12, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 09:21:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.05	.980
2.11	1.049
3.09	.990
4.12	1.009
5.20	1.024
6.23	1.017
7.15	.890
8.31	.237
9.19	.014
10.38	.037
11.36	.036
12.46	.105
13.51	.254
14.55	.240
15.48	.321
16.56	.531
17.65	.686
18.69	.705
19.70	.650
20.58	.931
21.72	.904
22.66	.960
23.84	.951
24.72	.955
25.88	1.047
26.81	.968
27.98	.996
28.98	1.006
30.03	.998
31.02	1.007
32.04	1.064
33.15	1.016
34.11	.992
35.10	1.024
36.14	.965
37.28	.968
38.36	.979
39.38	1.020
40.30	.970
41.47	.997

2-14-7

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 12, FT. SILL TESTS
DATE: 17 MAY 1978
SMOKE: DT
FUNCTION TIME 09:21:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

42.41	.969
43.53	1.064
44.45	1.092
45.63	1.033
46.68	1.073
47.61	1.078
48.73	.972
49.69	1.003
50.71	1.070
51.74	1.140
52.77	1.090
53.95	1.049
54.96	.961
56.03	1.021
57.05	.995
57.95	1.076
59.15	.928

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....12 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:21: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.03900
2.0	.06554
3.0	.22683
4.0	.02392
5.0	.21917
6.0	1.23511
7.0	.00000
8.0	1.47802
9.0	37.05257
10.0	56.75311
11.0	50.64569
12.0	48.26430
13.0	47.99445
14.0	37.60139
15.0	22.47564
16.0	21.78638
17.0	20.95819
18.0	12.52184
19.0	7.75416
20.0	7.98611
21.0	7.29116
22.0	1.12043
23.0	1.63470
24.0	1.63470
25.0	.77161
26.0	.79310
27.0	.38747
28.0	.25274
29.0	.54391
30.0	.23536
31.0	.02332
32.0	.17420
33.0	.21483
34.0	.17421
35.0	.16860
36.0	.30536
37.0	.28684
38.0	.03116
39.0	.00000
40.0	.17504
41.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....12 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:21: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.00000
43.0	.00000
44.0	.06097
45.0	.17288
46.0	.02999
47.0	.23614
48.0	.00000
49.0	.00000
50.0	.00923
51.0	.36515
52.0	.37429
53.0	.80339
54.0	.35443
55.0	.00000
56.0	.06738
57.0	.12342
58.0	.13089
59.0	.28478

VOLUME 2, SECTION 15

CONTENTS

TRIAL DPI-005-T13 (DUST) 17 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...13 (DP1-005)

DATE OF TRIAL...17 MAY 1978

FIRE-TIME..... 9:27: 2

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.993	1.006
2.0	.998	.994
3.0	.977	.944
4.0	.020	.012
5.0	.017	.032
6.0	.568	.483
7.0	.605	.530
8.0	.583	.437
9.0	.621	.519
10.0	.698	.587
11.0	.823	.786
12.0	.845	.789
13.0	.904	.866
14.0	.962	.960
15.0	.956	.959
16.0	.965	.982
17.0	.962	.967
18.0	.964	.973
19.0	.973	.977
20.0	.981	.975
21.0	.986	.990
22.0	.983	.974
23.0	.988	.999
24.0	.988	.996
25.0	.985	1.009
26.0	.990	.992
27.0	.990	.999
28.0	.991	.994
29.0	.992	.995
30.0	.992	1.001
31.0	.993	.994
32.0	.995	1.004
33.0	.992	1.001
34.0	.994	.997
35.0	.991	.993
36.0	.995	1.000
37.0	.995	1.013
38.0	.993	1.002
39.0	.995	1.002
40.0	.991	.995
41.0	.992	.987

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....13 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:27: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.994	.981

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...13 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:27: 2
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/MM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.6	.979	.000	.97E+00
2.3	.648	.105	.55E+00
3.8	.003	.467	.36E-03
4.7	.428	.255	.31E+00
5.7	.363	.325	.25E+00
6.6	.413	.295	.30E+00
7.9	.481	.254	.37E+00
8.9	.530	.239	.42E+00
10.0	.777	.089	.71E+00
11.1	.864	.051	.82E+00
12.0	.879	.058	.84E+00
13.1	.952	.013	.94E+00
14.3	.911	.038	.88E+00
15.2	.967	.020	.96E+00
16.3	.961	.024	.95E+00
17.4	.976	.015	.97E+00
18.4	.982	.011	.98E+00
19.5	.982	.000	.98E+00
20.6	.999	.000	.10E+01
21.6	.990	.006	.99E+00
22.6	1.023	.000	.10E+01
23.7	.996	.002	.10E+01
24.7	.999	.000	.10E+01
25.7	.999	.000	.10E+01
26.8	.982	.011	.98E+00
27.9	.990	.006	.99E+00
29.0	.982	.011	.98E+00
30.0	.993	.004	.99E+00
31.1	.996	.000	.10E+01
32.2	.988	.000	.98E+00
33.3	.982	.011	.98E+00
34.3	.999	.000	.10E+01
35.4	.999	.000	.10E+01
36.4	.985	.009	.98E+00
37.5	.999	.000	.10E+01
38.5	.993	.004	.99E+00
39.5	.990	.006	.99E+00
40.6	.996	.002	.10E+01
41.6	1.002	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 13, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 09:27:02

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.51	.938
2.55	.103
3.73	.010
4.72	.433
5.77	.414
6.76	.368
7.97	.436
8.90	.532
9.88	.792
10.97	.885
12.15	.869
13.22	1.024
14.13	1.157
15.17	1.170
16.20	1.144
17.35	1.112
18.29	1.005
19.35	1.079
20.45	.984
21.54	1.111
22.55	1.060
23.72	1.125
24.64	1.067
25.73	1.031
26.74	1.183
27.75	1.135
28.92	1.072
30.04	1.017
31.11	1.013
32.05	1.083
33.16	1.059
34.24	1.009
35.30	1.065
36.38	1.000
37.48	1.003
38.52	1.135
39.43	1.039
40.59	1.153
41.53	1.025

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....13 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:27: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.13852
3.0	1.41528
4.0	108.34937
5.0	84.08853
6.0	17.74817
7.0	15.49079
8.0	20.17738
9.0	15.99891
10.0	12.98427
11.0	5.86927
12.0	5.79293
13.0	3.50651
14.0	.99250
15.0	1.01641
16.0	.43499
17.0	.81588
18.0	.65570
19.0	.57839
20.0	.60751
21.0	.25653
22.0	.63695
23.0	.02892
24.0	.08610
25.0	.00000
26.0	.20028
27.0	.03453
28.0	.13928
29.0	.12802
30.0	.00000
31.0	.14378
32.0	.00000
33.0	.00000
34.0	.08145
35.0	.17229
36.0	.00000
37.0	.00000
38.0	.00000
39.0	.00000
40.0	.11904
41.0	.31059

CL VALUES (CM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....13 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:27: 2
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME
42.0 .45868

VOLUME 2, SECTION 16

CONTENTS

TRIAL DPI-005-T14 (DUST) 17 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....14 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME..... 9:34: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.002	.997
2.0	1.001	1.002
3.0	1.003	.983
4.0	1.000	.997
5.0	.995	.833
6.0	.935	.904
7.0	.039	.005
8.0	.025	.018
9.0	.072	.045
10.0	.114	.079
11.0	.313	.235
12.0	.471	.381
13.0	.724	.627
14.0	.860	.793
15.0	.848	.779
16.0	.854	.786
17.0	.935	.938
18.0	.935	.919
19.0	.975	1.000
20.0	.983	1.010
21.0	.984	.994
22.0	.982	1.003
23.0	.985	1.007
24.0	.987	1.002
25.0	.988	1.007
26.0	.990	.999
27.0	.992	1.008
28.0	.992	.993
29.0	.992	.999
30.0	.995	.991
31.0	.997	.992
32.0	1.003	1.005
33.0	1.000	1.014
34.0	.997	1.012
35.0	1.000	.999
36.0	.999	.995
37.0	.996	.998
38.0	.995	.997
39.0	.996	1.011
40.0	1.002	1.014
41.0	.999	1.003

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...14 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME..... 9:34: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.999	1.018
43.0	.998	1.007
44.0	.999	1.013
45.0	.999	1.010
46.0	1.003	1.002
47.0	1.002	1.004
48.0	1.004	.996
49.0	.999	1.010
50.0	.999	.995
51.0	.998	1.000
52.0	.999	1.005
53.0	.998	1.007
54.0	.996	1.000
55.0	.996	1.000
56.0	.995	.993
57.0	.997	.999
58.0	1.000	1.001
59.0	.998	1.008

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...14 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:34: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.2	1.023	.000	.10E+01
2.2	1.002	.000	.10E+01
3.3	.990	.004	.99E+00
4.3	.985	.000	.98E+00
5.1	.855	.011	.80E+00
6.0	.006	.481	.72E-03
7.4	.003	.498	.28E-03
8.2	.009	.510	.13E-02
9.4	.251	.390	.14E+00
10.4	.283	.385	.17E+00
11.8	.377	.326	.25E+00
12.9	.831	.057	.77E+00
13.9	.731	.135	.64E+00
14.9	.722	.157	.63E+00
15.9	.905	.042	.87E+00
17.0	.929	.027	.90E+00
18.0	.973	.000	.96E+00
19.1	.993	.000	.99E+00
20.1	.990	.000	.99E+00
21.1	.987	.006	.98E+00
22.2	.996	.000	.99E+00
23.2	.996	.000	.99E+00
24.2	1.005	.000	.10E+01
25.3	1.002	.000	.10E+01
26.3	1.008	.000	.10E+01
27.3	1.002	.000	.10E+01
28.5	.996	.000	.99E+00
29.5	.987	.000	.98E+00
30.6	.999	.000	.10E+01
31.7	1.011	.000	.10E+01
32.7	.996	.000	.99E+00
33.7	.982	.000	.97E+00
34.8	1.005	.000	.10E+01
35.9	1.002	.000	.10E+01
36.9	.990	.000	.99E+00
38.0	.996	.000	.99E+0
39.1	1.002	.000	.10E+01
40.2	.999	.000	.10E+01
41.2	.999	.000	.10E+01
42.2	.996	.000	.99E+00
43.2	1.002	.000	.10E+01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....14 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:34: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
44.3	1.002	.000	.10E+01
45.3	1.002	.000	.10E+01
46.3	1.002	.000	.10E+01
47.4	.982	.000	.97E+00
48.6	.985	.000	.98E+00
49.6	.985	.000	.98E+00
50.7	.985	.000	.98E+00
51.8	.982	.000	.97E+00
52.9	.985	.000	.98E+00
54.0	.987	.000	.98E+00
55.1	1.005	.000	.10E+01
56.2	1.008	.000	.10E+01
57.2	.987	.000	.98E+00
58.2	1.002	.000	.10E+01
59.3	.999	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 14, FT. SILL TESTS
DATE: 17 MAY 1978
SMOKE: DT
FUNCTION TIME 09:34:00

TIME AFTER FUNCTION (SECONDS)	TRANSMITTANCE (0.4-0.7)
1.17	.988
2.12	1.005
3.299	1.070
4.23	.973
5.23	.875
6.45	.010
7.50	.010
8.56	.010
9.52	.273
10.59	.266
11.75	.411
12.86	.785
13.75	.757
14.84	.749
15.95	.975
16.88	.895
17.96	1.022
19.08	.995
19.99	1.031
21.01	1.026
22.18	.987
23.22	1.040
24.12	1.066
25.31	1.082
26.31	1.113
27.41	1.006
28.35	1.075
29.40	1.121
30.63	1.163
31.56	1.151
32.73	1.099
33.70	1.095
34.82	.977
35.72	1.021
36.91	1.036
37.91	.988
39.00	1.033
40.03	1.012
41.20	1.072
42.13	1.011

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 14, FT. SILL TESTS
DATE: 17 MAY 1978
SMOKE: DT
FUNCTION TIME 09:34:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

43.19	1.019
44.30	1.068
45.31	.988
46.35	1.079
47.30	1.142
48.53	.995
49.63	.971
50.57	1.059
51.73	1.046
52.89	1.033
53.96	1.047
55.09	1.002
56.06	1.004
57.26	1.004
58.15	1.010
59.19	1.085

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...14 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:34: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.07989
2.0	.00000
3.0	.41629
4.0	.07278
5.0	4.45817
6.0	2.45220
7.0	129.84558
8.0	98.58179
9.0	75.68503
10.0	61.88026
11.0	35.35588
12.0	23.51796
13.0	11.39412
14.0	5.64341
15.0	6.08306
16.0	5.87571
17.0	1.56926
18.0	2.04894
19.0	.00000
20.0	.00000
21.0	.14596
22.0	.00000
23.0	.00000
24.0	.00000
25.0	.00000
26.0	.02626
27.0	.00000
28.0	.16457
29.0	.01224
30.0	.22506
31.0	.19004
32.0	.00000
33.0	.00000
34.0	.00000
35.0	.02311
36.0	.11787
37.0	.03760
38.0	.06134
39.0	.00000
40.0	.00000
41.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....14 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:34: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.00000
43.0	.00000
44.0	.00000
45.0	.00000
46.0	.00000
47.0	.00000
48.0	.08680
49.0	.00000
50.0	.11711
51.0	.00474
52.0	.00000
53.0	.00000
54.0	.00000
55.0	.00000
56.0	.16609
57.0	.03634
58.0	.00000
59.0	.00000

VOLUME 2, SECTION 17

CONTENTS

TRIAL DPI-005-T15 (DUST) 17 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4 - 0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...15 (DP1-005)

DATE OF TRIAL...17 MAY 1978

FIRE-TIME..... 9:57:59

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
------------------------------	----------------------	----------------------

1.0	.996	.985
2.0	.996	.985
3.0	.990	.985
4.0	.990	.985
5.0	.988	.950
6.0	.983	.943
7.0	.979	.962
8.0	.971	.970
9.0	.969	.970
10.0	.963	.963
11.0	.932	.924
12.0	.796	.711
13.0	.499	.351
14.0	.344	.244
15.0	.281	.203
16.0	.346	.252
17.0	.261	.181
18.0	.341	.253
19.0	.419	.294
20.0	.554	.421
21.0	.601	.501
22.0	.620	.493
23.0	.700	.622
24.0	.685	.585
25.0	.747	.686
26.0	.795	.735
27.0	.889	.881
28.0	.873	.858
29.0	.894	.862
30.0	.937	.931
31.0	.938	.930
32.0	.939	.938
33.0	.956	.967
34.0	.959	.979
35.0	.963	.976
36.0	.965	.993
37.0	.968	.990
38.0	.966	.971
39.0	.966	.974
40.0	.965	.998
41.0	.975	.985

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....15 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME..... 9:57:59
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.984	.991
43.0	.992	1.008
44.0	.985	1.000
45.0	.982	.988
46.0	.975	.984
47.0	.980	.969
48.0	.981	.986
49.0	.983	.991
50.0	.983	1.010

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....15 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:57:59
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.4	1.003	.000	.10E+01
2.5	.988	.006	.99E+00
3.6	.982	.009	.98E+00
4.6	.979	.010	.97E+00
5.6	.961	.019	.95E+00
6.7	.952	.008	.94E+00
7.8	.946	.011	.93E+00
8.9	.931	.034	.91E+00
10.1	.887	.041	.86E+00
10.9	.660	.139	.59E+00
12.0	.209	.333	.14E+00
13.0	.146	.364	.90E-01
14.4	.158	.358	.10E+00
15.1	.131	.388	.79E-01
16.3	.119	.393	.70E-01
17.5	.167	.370	.11E+00
18.7	.284	.311	.21E+00
19.7	.451	.228	.37E+00
20.5	.361	.273	.28E+00
21.6	.448	.229	.37E+00
22.9	.493	.223	.41E+00
23.8	.612	.163	.54E+00
25.0	.696	.121	.64E+00
25.9	.830	.054	.79E+00
27.0	.815	.077	.77E+00
28.2	.845	.062	.81E+00
29.3	.925	.022	.91E+00
30.4	.913	.028	.89E+00
31.5	.946	.011	.93E+00
32.6	.946	.011	.93E+00
33.7	.961	.004	.95E+00
34.8	.946	.011	.93E+00
35.9	.964	.002	.96E+00
36.9	.991	.000	.99E+00
37.9	.997	.000	.10E+01
39.1	.991	.004	.99E+00
40.1	.979	.000	.97E+00
41.1	.985	.000	.98E+00
42.1	.982	.009	.98E+00
43.2	1.009	.000	.10E+01
44.2	.979	.000	.97E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....15 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:57:59
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
45.3	.982	.000	.98E+00
46.3	.988	.000	.99E+00
47.4	.976	.000	.97E+00
48.4	.976	.000	.97E+00
49.5	.991	.000	.99E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 15, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 09:57:59

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.26	.977
2.33	1.003
3.53	.993
4.46	.982
5.69	.983
6.61	.990
7.70	.974
8.85	.982
9.89	.899
10.96	.624
12.08	.162
13.17	.122
14.42	.126
15.31	.090
16.37	.112
17.58	.148
18.68	.277
19.78	.431
20.69	.351
21.72	.448
22.90	.461
23.87	.581
24.96	.650
25.92	.836
27.06	.800
27.99	.860
29.26	.926
30.24	.933
31.34	.967
32.57	.972
33.52	.969
34.75	.960
35.88	.974
36.81	.947
37.86	.944
38.99	.915
39.95	.927
41.12	.928
42.02	.944
43.10	.925

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 15, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 09:57:59

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

44.17	.955
45.29	.922
46.23	.965
47.26	.990
48.44	.986
49.39	.975

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....15 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:57:59
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.36188
2.0	.36188
3.0	.36188
4.0	.36188
5.0	.00000
6.0	1.43640
7.0	.95690
8.0	.73758
9.0	.73629
10.0	.91106
11.0	1.91471
12.0	8.33078
13.0	25.54734
14.0	34.41914
15.0	38.89709
16.0	33.59028
17.0	41.64304
18.0	33.55732
19.0	29.86849
20.0	21.07248
21.0	16.85227
22.0	17.25320
23.0	11.59968
24.0	13.09713
25.0	9.19890
26.0	7.52323
27.0	3.08850
28.0	3.74114
29.0	3.61435
30.0	1.75315
31.0	1.75900
32.0	1.55879
33.0	.82912
34.0	.51085
35.0	.59301
36.0	.17405
37.0	.25214
38.0	.71704
39.0	.64168
40.0	.04176
41.0	.36213

CL VALUES (CM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....15 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME..... 9:57:59
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.22313
43.0	.00000
44.0	.01163
45.0	.28580
46.0	.40187
47.0	.76609
48.0	.35495
49.0	.23069
50.0	.00000

VOLUME 2, SECTION 18

CONTENTS

TRIAL DPI-005-T16 (DUST) 17 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...16 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....10: 4: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.991	1.006
2.0	.992	1.005
3.0	.993	.985
4.0	.994	1.013
5.0	.995	1.014
6.0	.995	.993
7.0	.995	1.021
8.0	.999	1.017
9.0	.995	1.002
10.0	.991	1.012
11.0	.990	.978
12.0	.990	.996
13.0	.995	1.001
14.0	.993	.996
15.0	.989	.998
16.0	.920	.887
17.0	.602	.484
18.0	.543	.413
19.0	.588	.435
20.0	.410	.277
21.0	.403	.286
22.0	.340	.247
23.0	.224	.130
24.0	.265	.177
25.0	.379	.291
26.0	.422	.297
27.0	.352	.220
28.0	.281	.178
29.0	.248	.151
30.0	.352	.246
31.0	.432	.309
32.0	.540	.390
33.0	.584	.449
34.0	.666	.566
35.0	.716	.640
36.0	.707	.611
37.0	.808	.799
38.0	.838	.815
39.0	.859	.855
40.0	.903	.894
41.0	.927	.955

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....16 (DP1-005)
 DATE OF TRIAL....17 MAY 1978
 FIRE-TIME.....10: 4: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.966	.997
43.0	.972	.988
44.0	.979	1.019
45.0	.982	1.007
46.0	.989	1.030
47.0	.992	.995
48.0	.995	.985
49.0	.996	.984
50.0	1.000	1.003
51.0	1.000	1.022
52.0	1.003	1.033
53.0	1.008	1.037
54.0	1.008	.514
55.0	1.004	1.043
56.0	1.008	1.039
57.0	1.011	1.054
58.0	1.011	1.043
59.0	1.007	1.025
60.0	1.007	1.033
61.0	1.010	1.044
62.0	1.008	1.045
63.0	1.013	1.033
64.0	1.012	1.043
65.0	1.011	1.040
66.0	1.012	1.034
67.0	1.011	1.014
68.0	1.011	1.028
69.0	1.012	1.026
70.0	1.017	1.031
71.0	1.028	1.056
72.0	1.016	1.037
73.0	1.015	1.050
74.0	1.014	1.050

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...16 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10: 4: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NN	CALCULATED TRANSMITTANCE (0.4-0.7)
1.7	.991	.005	.99E+00
2.8	.985	.008	.98E+00
4.0	.995	.003	.99E+00
4.9	.985	.008	.98E+00
6.1	.991	.005	.99E+00
7.2	.985	.008	.98E+00
8.2	.979	.012	.97E+00
9.4	.979	.012	.97E+00
10.5	.985	.024	.98E+00
11.5	.982	.010	.98E+00
12.6	.985	.008	.98E+00
13.6	.988	.022	.99E+00
14.6	.966	.018	.96E+00
15.5	.870	.056	.84E+00
16.4	.465	.262	.38E+00
17.5	.368	.299	.29E+00
18.5	.327	.321	.25E+00
19.6	.187	.398	.12E+00
20.9	.147	.420	.91E-01
21.6	.097	.447	.54E-01
23.0	.103	.444	.58E-01
24.0	.171	.406	.11E+00
24.8	.187	.398	.12E+00
25.8	.140	.423	.86E-01
27.1	.118	.435	.70E-01
28.2	.115	.453	.67E-01
29.1	.162	.427	.10E+00
30.2	.243	.383	.17E+00
31.4	.265	.371	.19E+00
32.5	.424	.284	.34E+00
33.6	.483	.267	.40E+00
34.5	.521	.262	.44E+00
35.8	.677	.177	.61E+00
36.7	.736	.145	.68E+00
37.9	.792	.114	.75E+00
39.0	.867	.089	.84E+00
40.1	.885	.078	.86E+00
41.2	.963	.036	.95E+00
42.4	.960	.037	.95E+00
43.4	.966	.034	.96E+00
44.5	.966	.034	.96E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...16 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10: 4: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
45.7	.985	.024	.98E+00
46.9	.982	.025	.98E+00
48.0	.988	.022	.99E+00
49.1	.988	.038	.99E+00
50.2	.988	.038	.99E+00
51.3	.995	.034	.99E+00
52.4	.995	.034	.99E+00
53.5	.998	.033	.10E+01
54.6	.998	.033	.10E+01
55.7	.995	.034	.99E+00
56.7	1.001	.031	.10E+01
57.8	1.001	.031	.10E+01
58.9	.988	.038	.99E+00
60.1	.991	.036	.99E+00
61.2	.995	.034	.99E+00
62.3	.998	.033	.10E+01
63.5	1.001	.031	.10E+01
64.6	1.001	.031	.10E+01
65.8	1.001	.031	.10E+01
66.9	.998	.033	.10E+01
68.0	1.001	.031	.10E+01
69.1	1.004	.029	.10E+01
70.2	1.004	.029	.10E+01
71.2	1.007	.027	.10E+01
72.2	1.004	.045	.10E+01
73.3	.991	.052	.99E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 16, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 10:04:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.68	.996
2.71	.987
3.93	.993
4.88	1.024
5.96	.968
7.20	.989
8.14	.961
9.37	.954
10.37	.955
11.54	.891
12.44	.959
13.63	.937
14.65	.938
15.52	.759
16.56	.356
17.59	.292
18.63	.234
19.69	.139
20.84	.121
21.76	.075
22.95	.078
24.01	.144
24.89	.168
25.94	.113
27.11	.099
28.15	.095
29.22	.157
30.27	.230
31.29	.251
32.39	.426
33.37	.479
34.47	.534
35.73	.619
36.78	.733
37.94	.763
39.05	.868
40.00	.886
41.10	.934
42.30	.990
43.41	.976

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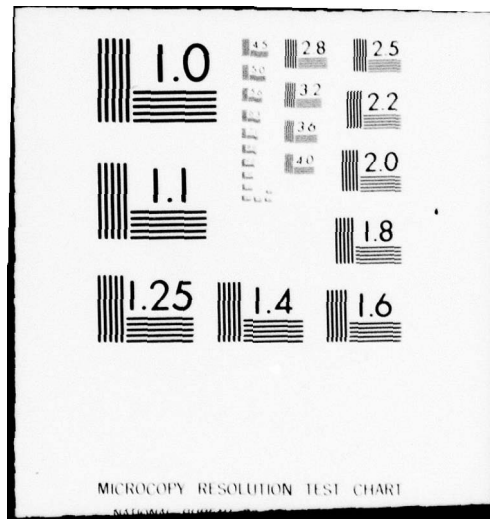
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TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 16, FT. SILL TESTS
DATE: 17 MAY 1978
SMOKE: DT
FUNCTION TIME 10:04:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

44.44	.996
45.67	1.022
46.72	1.014
47.95	1.001
48.96	1.024
50.09	1.004
51.15	1.008
52.36	1.009
53.47	1.024
54.57	1.026
55.68	1.025
56.77	1.027
57.78	1.018
58.85	1.018
60.00	1.036
61.06	1.001
62.28	.991
63.32	1.016
64.62	1.008
65.77	1.022
66.93	1.043
68.02	1.010
68.95	1.016
70.00	1.002
71.22	1.005
72.27	.999
73.20	1.007

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....16 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10: 4: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.36512
4.0	.00000
5.0	.00000
6.0	.17253
7.0	.00000
8.0	.00000
9.0	.00000
10.0	.00000
11.0	.54469
12.0	.10672
13.0	.00000
14.0	.10286
15.0	.05901
16.0	2.91581
17.0	17.67789
18.0	21.59528
19.0	20.28001
20.0	31.29297
21.0	30.51039
22.0	34.15119
23.0	49.84689
24.0	42.20853
25.0	30.08470
26.0	29.61603
27.0	36.89335
28.0	42.03451
29.0	46.15832
30.0	34.22632
31.0	28.62005
32.0	22.95521
33.0	19.55082
34.0	13.87834
35.0	10.89028
36.0	12.01292
37.0	5.47750
38.0	4.98507
39.0	3.82741
40.0	2.72504
41.0	1.11116

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....16 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10: 4: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.07840
43.0	.30610
44.0	.00000
45.0	.00000
46.0	.00000
47.0	.13278
48.0	.37903
49.0	.40484
50.0	.00000
51.0	.00000
52.0	.00000
53.0	.00000
54.0	16.24809
55.0	.00000
56.0	.00000
57.0	.00000
58.0	.00000
59.0	.00000
60.0	.00000
61.0	.00000
62.0	.00000
63.0	.00000
64.0	.00000
65.0	.00000
66.0	.00000
67.0	.00000
68.0	.00000
69.0	.00000
70.0	.00000
71.0	.00000
72.0	.00000
73.0	.00000
74.0	.00000

VOLUME 2, SECTION 19

CONTENTS

TRIAL DPI-005-T17 (DUST) 17 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...17 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....10:10: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.005	1.024
2.0	.990	.989
3.0	.978	.972
4.0	.995	1.005
5.0	1.003	1.003
6.0	1.006	1.010
7.0	1.004	1.001
8.0	1.006	1.008
9.0	1.006	1.015
10.0	1.004	1.016
11.0	1.007	1.014
12.0	1.002	1.015
13.0	.995	1.012
14.0	.989	.978
15.0	.947	.918
16.0	.789	.694
17.0	.520	.362
18.0	.386	.270
19.0	.325	.216
20.0	.256	.154
21.0	.267	.184
22.0	.160	.075
23.0	.329	.202
24.0	.191	.106
25.0	.373	.250
26.0	.354	.222
27.0	.565	.447
28.0	.581	.457
29.0	.721	.658
30.0	.792	.744
31.0	.824	.805
32.0	.850	.825
33.0	.879	.882
34.0	.882	.866
35.0	.928	.951
36.0	.939	.952
37.0	.937	.938
38.0	.929	.926
39.0	.930	.456
40.0	.948	.955
41.0	.956	.973

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...17 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....10:10: 1
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.953	.960
43.0	.966	.970
44.0	.972	.978
45.0	.971	.980
46.0	.971	.973
47.0	.977	.992
48.0	.980	.982
49.0	.980	.980
50.0	.977	.978
51.0	.977	.982
52.0	.982	.973
53.0	.980	.964
54.0	.980	.977
55.0	1.000	.987
56.0	.998	.983
57.0	.991	.971
58.0	.991	.988
59.0	.991	.971
60.0	.993	.985
61.0	.990	.988
62.0	.987	.980
63.0	.990	1.007
64.0	.996	.982
65.0	.991	.980
66.0	.979	.981
67.0	.996	.978
68.0	.998	1.008
69.0	.992	.938
70.0	.995	.938
71.0	.985	.970
72.0	.995	.985
73.0	.999	.995
74.0	1.011	1.006

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...17 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10:10: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/MM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.5	.973	.015	.97E+00
2.4	.973	.015	.97E+00
3.6	.992	.005	.99E+00
4.7	.976	.014	.97E+00
5.8	.986	.008	.98E+00
6.8	.989	.006	.99E+00
7.9	.989	.006	.99E+00
9.0	.976	.014	.97E+00
10.1	.976	.014	.97E+00
11.2	.964	.021	.96E+00
12.4	.967	.019	.96E+00
13.3	.911	.036	.89E+00
14.3	.767	.119	.72E+00
15.4	.381	.343	.30E+00
16.5	.178	.444	.12E+00
17.6	.165	.451	.11E+00
18.9	.100	.489	.56E-01
19.8	.078	.502	.41E-01
21.2	.062	.511	.31E-01
21.8	.081	.500	.43E-01
23.2	.097	.491	.54E-01
24.1	.125	.475	.74E-01
25.4	.134	.469	.81E-01
26.2	.225	.417	.15E+00
27.5	.440	.293	.36E+00
28.7	.664	.163	.60E+00
29.8	.795	.103	.75E+00
30.8	.761	.122	.71E+00
31.9	.802	.099	.76E+00
33.1	.780	.112	.73E+00
34.1	.914	.034	.89E+00
35.3	.961	.007	.95E+00
36.3	.927	.027	.91E+00
37.5	.914	.050	.89E+00
38.6	.951	.028	.94E+00
39.6	.958	.024	.95E+00
40.6	.958	.024	.95E+00
41.7	.970	.017	.96E+00
42.8	.970	.017	.96E+00
43.8	.967	.019	.96E+00
44.9	.961	.038	.95E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....17 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10:10: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
45.9	.973	.015	.97E+00
47.1	.973	.015	.97E+00
48.2	.976	.014	.97E+00
49.3	.970	.017	.96E+00
50.4	.970	.017	.96E+00
51.4	.970	.017	.96E+00
52.6	.973	.015	.97E+00
53.7	.967	.019	.96E+00
54.9	.976	.014	.97E+00
55.9	.980	.012	.97E+00
57.0	.970	.017	.96E+00
58.0	.973	.015	.97E+00
59.2	.967	.019	.96E+00
60.3	.970	.017	.96E+00
61.4	.973	.031	.97E+00
62.4	.967	.019	.96E+00
63.7	.980	.012	.97E+00
64.8	.983	.010	.98E+00
65.8	.989	.006	.99E+00
66.9	1.011	.000	.10E+01
68.0	.995	.018	.99E+00
69.0	.983	.026	.98E+0
70.1	1.001	.015	.10E+01
71.1	.989	.022	.99E+00
72.2	.998	.017	.10E+01
73.2	1.001	.015	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 17, FT. SILL TESTS
 DATE: 17 MAY 1978
 SMOKE: DT
 FUNCTION TIME 10:10:01

TIME AFTER FUNCTION
 (SECONDS)

TRANSMITTANCE
 (0.4-0.7)

1.42	.974
2.53	1.015
3.57	1.018
4.59	.962
5.63	1.013
6.70	.998
7.78	1.032
8.86	1.035
10.08	1.022
11.09	1.027
12.35	1.013
13.29	.989
14.41	.813
15.53	.386
16.63	.174
17.74	.149
18.99	.095
19.93	.077
21.16	.050
22.02	.076
23.18	.084
24.18	.123
25.25	.117
26.27	.216
27.52	.436
28.64	.633
29.73	.732
30.83	.784
31.87	.804
32.91	.771
34.07	.950
35.22	.979
36.27	.915
37.44	.843
38.50	.910
39.46	.898
40.64	.946
41.63	.915
42.71	.916
43.77	.945

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 17, FT. SILL TESTS
DATE: 17 MAY 1978
SMOKE: DT
FUNCTION TIME 10:10:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

44.88	.975
45.89	1.004
46.94	1.023
48.08	1.023
49.19	1.008
50.36	.997
51.36	1.005
52.50	.920
53.65	.912
54.83	.973
55.86	.999
56.88	.989
57.94	.980
59.18	.999
60.30	1.000
61.30	.913
62.51	.998
63.64	.981
64.70	1.040
65.74	1.021
66.94	1.013
67.86	.965
69.01	1.007
69.94	1.024
70.99	1.015
72.06	.991
73.14	1.015

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....17 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10:10: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.26249
3.0	.68689
4.0	.00000
5.0	.00000
6.0	.00000
7.0	.00000
8.0	.00000
9.0	.00000
10.0	.00000
11.0	.00000
12.0	.00000
13.0	.00000
14.0	.55253
15.0	2.09381
16.0	8.91892
17.0	24.76737
18.0	31.94517
19.0	37.35832
20.0	45.66407
21.0	41.28539
22.0	63.28072
23.0	39.05099
24.0	54.71172
25.0	33.76861
26.0	36.65495
27.0	19.62580
28.0	19.12310
29.0	10.19639
30.0	7.20674
31.0	5.27709
32.0	4.68762
33.0	3.05035
34.0	3.50386
35.0	1.22873
36.0	1.19492
37.0	1.56271
38.0	1.88617
39.0	19.17848
40.0	1.11701
41.0	.67958

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....17 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....10:10: 1
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.99767
43.0	.75131
44.0	.54204
45.0	.49369
46.0	.66633
47.0	.20792
48.0	.44622
49.0	.48505
50.0	.53801
51.0	.43409
52.0	.66822
53.0	.89186
54.0	.56218
55.0	.32358
56.0	.40889
57.0	.72424
58.0	.30041
59.0	.72668
60.0	.37721
61.0	.30120
62.0	.48913
63.0	.00000
64.0	.43176
65.0	.50255
66.0	.45815
67.0	.55132
68.0	.00000
69.0	1.55130
70.0	1.55130
71.0	.73265
72.0	.37169
73.0	.12569
74.0	.00000

VOLUME 2, SECTION 20

CONTENTS

TRIAL DPI-005-T18 (DUST) 17 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...18 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:34:59
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.002	1.042
2.0	.987	1.027
3.0	.978	1.041
4.0	.985	1.029
5.0	.966	1.008
6.0	.968	1.012
7.0	.918	.964
8.0	.931	.947
9.0	.190	.147
10.0	.223	.130
11.0	.096	.050
12.0	.196	.144
13.0	.308	.249
14.0	.381	.298
15.0	.272	.192
16.0	.471	.375
17.0	.481	.403
18.0	.645	.583
19.0	.775	.743
20.0	.798	.751
21.0	.857	.836
22.0	.919	.925
23.0	.939	.950
24.0	.886	.910
25.0	.963	.975
26.0	.957	.983
27.0	.968	1.000
28.0	.973	.999
29.0	.982	1.015
30.0	.984	1.047
31.0	.994	1.046
32.0	.984	1.046
33.0	.986	1.013
34.0	.986	1.002
35.0	.990	1.003
36.0	.982	1.020
37.0	.985	.995
38.0	.973	.936
39.0	.985	.995
40.0	.990	1.020
41.0	.991	1.005

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....18 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:34:59
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.991	.992
43.0	.992	1.001
44.0	.992	.999
45.0	.995	1.006
46.0	.994	.992
47.0	.992	1.029
48.0	.998	1.040
49.0	.998	1.047
50.0	.996	1.081
51.0	.991	1.076
52.0	.991	1.017
53.0	.991	1.016
54.0	.992	1.058
55.0	.996	1.069
56.0	.996	1.067
57.0	.995	1.076
58.0	.995	1.081
59.0	.999	1.077
60.0	.993	1.076

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....18 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:34:59
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.9	.992	.017	.99E+00
2.9	.997	.000	.10E+01
3.9	.983	.046	.98E+00
5.1	.980	.035	.97E+00
6.1	.950	.032	.93E+00
7.1	.912	.000	.88E+00
7.9	.047	1.133	.14E-01
9.2	.029	1.097	.70E-02
10.3	.035	1.135	.91E-02
11.6	.153	1.006	.71E-01
12.4	.235	.929	.13E+00
13.9	.132	1.099	.58E-01
14.9	.385	.736	.26E+00
16.1	.353	.816	.23E+00
17.1	.544	.545	.43E+00
18.1	.656	.425	.55E+00
19.3	.780	.256	.70E+00
20.3	.880	.122	.84E+00
21.3	.921	.091	.89E+00
22.3	.824	.237	.76E+00
23.5	.953	.027	.94E+00
24.5	.968	.021	.96E+00
25.7	.971	.017	.96E+00
26.7	.956	.039	.94E+00
27.9	.953	.043	.94E+00
28.9	.983	.000	.98E+00
29.9	.997	.000	.10E+01
31.1	.989	.000	.98E+00
32.1	.997	.000	.10E+01
33.1	.995	.000	.99E+00
34.3	.995	.000	.99E+00
35.3	.995	.000	.99E+00
36.5	.992	.000	.99E+00
37.5	.995	.000	.99E+00
38.7	.989	.000	.98E+00
39.8	1.003	.000	.10E+01
40.9	.989	.000	.98E+00
42.1	1.006	.000	.10E+01
43.1	1.000	.000	.10E+01
44.3	1.009	.000	.10E+01
45.3	1.000	.000	.10E+01

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...18 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:34:59
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
46.5	1.003	.000	.10E+01
47.5	1.003	.000	.10E+01
48.7	.997	.000	.10E+01
49.6	.997	.000	.10E+01
50.8	1.003	.000	.10E+01
51.9	.997	.000	.10E+01
53.0	.997	.000	.10E+01
54.1	1.021	.000	.10E+01
55.0	1.015	.000	.10E+01
56.0	1.006	.000	.10E+01
57.2	1.006	.000	.10E+01
58.2	.997	.000	.10E+01
59.4	.997	.000	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 18, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:34:59

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.78	.954
2.99	.937
3.88	.983
5.10	.995
6.00	.983
7.20	.951
8.17	.010
9.28	.021
10.41	.031
11.66	.132
12.63	.217
13.87	.123
14.98	.418
15.89	.321
16.96	.569
18.04	.706
19.23	.795
20.31	.880
21.40	.935
22.29	.855
23.43	.975
24.60	.988
25.60	1.009
26.62	.959
27.81	.974
28.82	1.011
30.00	.977
31.11	1.014
32.03	1.021
33.24	1.020
34.17	1.038
35.27	1.035
36.39	1.026
37.50	1.045
38.60	1.032
39.84	1.015
40.85	1.035
42.08	1.026
43.02	1.038
44.30	1.026

2-20-6

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 18, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:34:59

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

45.41	.985
46.34	1.013
47.57	.994
48.50	.993
49.73	1.024
50.74	1.030
51.75	1.010
52.87	1.030
54.11	1.010
55.00	1.024
56.05	1.019
57.25	1.024
58.25	1.034
59.44	1.028

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....18 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:34:59
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.00000
4.0	.00000
5.0	.00000
6.0	.00000
7.0	.90255
8.0	1.33030
9.0	46.81374
10.0	49.71617
11.0	73.31084
12.0	47.22198
13.0	33.91186
14.0	29.54738
15.0	40.28179
16.0	23.89120
17.0	22.19262
18.0	13.14695
19.0	7.24840
20.0	6.99198
21.0	4.36431
22.0	1.89038
23.0	1.25794
24.0	2.28866
25.0	.61206
26.0	.42481
27.0	.00000
28.0	.03612
29.0	.00000
30.0	.00000
31.0	.00000
32.0	.00000
33.0	.00000
34.0	.00000
35.0	.00000
36.0	.00000
37.0	.12653
38.0	1.62538
39.0	.11007
40.0	.00000
41.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....18 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:34:59
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.20180
43.0	.00000
44.0	.03509
45.0	.00000
46.0	.19870
47.0	.00000
48.0	.00000
49.0	.00000
50.0	.00000
51.0	.00000
52.0	.00000
53.0	.00000
54.0	.00000
55.0	.00000
56.0	.00000
57.0	.00000
58.0	.00000
59.0	.00000
60.0	.00000

VOLUME 2, SECTION 21

CONTENTS

TRIAL DPI-005-T19 (DUST) 17 MAY 1978

- TABLE: DOSAGE AT INDICATED SAMPLING POSITION
- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRIAL 19. FT. STILL TESTS, 17 MAY 78, 11:41:00, DUST

SAMPLING POSITION	GRID REFERENCE			OBSERVED DOSAGE (GM.MTN/M**3)
	X(M)	Y(M)	Z(M)	
1	.00	.00	.00	.02167
2	.00	15.00	.00	.00000
3	.00	30.00	.00	.00000
4	.00	45.00	.00	.00000
5	.00	60.00	.00	.00000
6	.00	75.00	.00	.00067
7	.00	90.00	.00	.10250
8	.00	105.00	.00	.20700
9	.00	120.00	.00	.11100
10	.00	135.00	.00	.09800
11	.00	150.00	.00	.00367
12	.00	165.00	.00	.00000
13	.00	180.00	.00	.00000
14	.00	195.00	.00	.00217
15	.00	210.00	.00	.02500

DOSAGE ALONG SIGHT LINE= 8.57500 (GM.MIN/M**2)

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...19 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:41: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	.997	1.002
2.0	1.002	1.046
3.0	1.004	1.034
4.0	.992	1.047
5.0	.997	1.057
6.0	.996	1.074
7.0	1.005	1.077
8.0	.985	1.064
9.0	.981	1.111
10.0	.989	1.141
11.0	.987	1.071
12.0	1.000	1.063
13.0	.988	1.074
14.0	.994	1.073
15.0	.997	1.082
16.0	.990	1.068
17.0	.920	1.021
18.0	.615	.593
19.0	.516	.499
20.0	.430	.383
21.0	.412	.375
22.0	.220	.169
23.0	.150	.098
24.0	.207	.132
25.0	.234	.167
26.0	.326	.272
27.0	.367	.312
28.0	.372	.317
29.0	.446	.401
30.0	.486	.457
31.0	.632	.616
32.0	.698	.703
33.0	.770	.799
34.0	.852	.914
35.0	.861	.901
36.0	.902	.977
37.0	.876	.945
38.0	.909	1.012
39.0	.946	1.081
40.0	.968	1.062
41.0	.949	1.031

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....19 (DPL-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:41: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.976	.937
43.0	.984	1.126
44.0	.979	1.113
45.0	.975	1.115
46.0	.978	1.124
47.0	.985	1.103
48.0	.987	1.097
49.0	.980	1.076
50.0	.977	1.105
51.0	.997	1.137
52.0	.994	1.122
53.0	.984	1.125
54.0	.983	1.140
55.0	.988	1.143
56.0	.986	1.096
57.0	.978	1.129
58.0	.982	1.132
59.0	.974	1.166
60.0	.990	1.189
61.0	.988	1.253
62.0	.990	1.231
63.0	.996	1.232
64.0	.994	1.263
65.0	.990	1.249
66.0	.986	1.256
67.0	.991	1.185
68.0	.996	1.265
69.0	.995	1.281
70.0	.992	1.194
71.0	.991	1.256
72.0	.984	1.202
73.0	.987	1.211
74.0	.983	1.185

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER...19 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:41: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.6	1.010	.000	.10E+01
2.7	1.001	.001	.10E+01
3.8	1.001	.001	.10E+01
5.0	.995	.026	.99E+00
6.0	.995	.026	.99E+00
7.2	1.004	.012	.10E+01
8.2	.992	.015	.99E+00
9.4	.995	.010	.99E+00
10.3	.992	.030	.99E+00
11.6	1.007	.000	.10E+01
12.6	.989	.019	.99E+00
13.8	1.001	.001	.10E+01
14.8	.989	.019	.99E+00
15.8	.940	.098	.93E+00
17.0	.515	.712	.44E+00
17.9	.330	.928	.25E+00
19.1	.246	1.046	.17E+00
19.8	.191	1.134	.13E+00
20.9	.055	1.335	.27E-01
22.2	.049	1.344	.23E-01
23.5	.069	1.327	.36E-01
24.5	.142	1.228	.87E-01
25.4	.188	1.170	.12E+00
26.4	.188	1.185	.12E+00
27.6	.208	1.153	.14E+00
28.8	.272	1.052	.20E+00
29.8	.419	.848	.34E+00
31.2	.599	.594	.53E+00
32.4	.723	.396	.67E+00
33.5	.819	.275	.78E+00
34.5	.874	.204	.84E+00
35.5	.801	.319	.76E+00
36.7	.865	.217	.83E+00
37.8	.900	.178	.88E+00
39.0	.926	.136	.91E+00
40.0	.914	.155	.89E+00
41.0	.955	.121	.94E+00
42.2	.992	.046	.99E+00
43.2	.975	.074	.97E+00
44.3	.969	.083	.96E+00
45.3	.986	.055	.98E+00

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....19 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:41: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
46.3	.998	.068	.10E+01
47.6	.995	.057	.99E+00
48.5	.986	.086	.98E+00
49.7	.989	.097	.99E+00
50.7	1.001	.048	.10E+01
51.8	.998	.037	.10E+01
52.8	.986	.071	.98E+00
54.0	1.004	.043	.10E+01
55.0	.992	.077	.99E+00
56.1	.992	.062	.99E+00
57.1	.995	.057	.99E+00
58.3	.992	.062	.99E+00
59.3	.995	.057	.99E+00
60.4	.983	.091	.98E+00
61.6	.998	.052	.10E+01
62.6	1.007	.039	.10E+01
63.7	.998	.068	.10E+01
64.7	1.004	.059	.10E+01
66.0	1.012	.029	.10E+01
67.0	1.018	.020	.10E+01
68.1	1.007	.054	.10E+01
69.3	.992	.077	.99E+00
70.3	1.001	.048	.10E+01
71.4	1.001	.048	.10E+01
72.4	.995	.073	.99E+00
73.4	.998	.084	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 19, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:41:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.71	1.015
2.80	1.015
3.74	1.003
4.84	1.027
6.10	.977
7.22	.989
8.28	.989
9.41	.995
10.36	.987
11.47	1.009
12.69	.994
13.68	1.011
14.76	.999
15.99	.940
17.03	.471
17.98	.275
19.08	.205
20.08	.125
21.14	.041
22.26	.043
23.47	.055
24.52	.138
25.52	.171
26.54	.178
27.65	.203
28.93	.267
29.93	.447
31.10	.597
32.35	.714
33.42	.825
34.45	.866
35.49	.803
36.60	.844
37.75	.873
38.78	.924
39.89	.920
41.02	.969
42.04	.978
43.11	.979
44.31	.998

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 19, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:41:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

45.43	1.008
46.35	.990
47.49	1.018
48.65	.979
49.69	1.003
50.71	1.016
51.65	.987
52.73	.986
53.82	1.005
55.04	.992
56.06	1.010
57.13	.997
58.17	1.010
59.40	1.020
60.36	1.024
61.58	1.001
62.69	.989
63.69	1.000
64.72	.992
65.91	1.020
66.90	1.001
67.99	1.005
69.22	1.013
70.35	1.010
71.42	1.003
72.46	.973
73.53	1.019

CL VALUES (GM/NM*2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER...19 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:41: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.00000
4.0	.00000
5.0	.00000
6.0	.00000
7.0	.00000
8.0	.00000
9.0	.00000
10.0	.00000
11.0	.00000
12.0	.00000
13.0	.00000
14.0	.00000
15.0	.00000
16.0	.00000
17.0	.00000
18.0	15.12807
19.0	20.11929
20.0	27.76340
21.0	28.37979
22.0	51.47752
23.0	67.12202
24.0	58.56573
25.0	51.71790
26.0	37.64191
27.0	33.70313
28.0	33.20630
29.0	26.46545
30.0	22.67978
31.0	14.01443
32.0	10.20415
33.0	6.50493
34.0	2.60492
35.0	3.00725
36.0	.67224
37.0	1.65032
38.0	.00000
39.0	.00000
40.0	.00000
41.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....19 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:41: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	1.87151
43.0	.00000
44.0	.00000
45.0	.00000
46.0	.00000
47.0	.00000
48.0	.00000
49.0	.00000
50.0	.00000
51.0	.00000
52.0	.00000
53.0	.00000
54.0	.00000
55.0	.00000
56.0	.00000
57.0	.00000
58.0	.00000
59.0	.00000
60.0	.00000
61.0	.00000
62.0	.00000
63.0	.00000
64.0	.00000
65.0	.00000
66.0	.00000
67.0	.00000
68.0	.00000
69.0	.00000
70.0	.00000
71.0	.00000
72.0	.00000
73.0	.00000
74.0	.00000

VOLUME 2, SECTION 22

CONTENTS

TRIAL DPI-005-T20 (DUST) 17 MAY 1978

- TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm
- TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME
- TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm
- TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...20 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:48: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.006	1.019
2.0	1.001	1.023
3.0	.994	1.007
4.0	.999	.985
5.0	.995	1.001
6.0	.990	.950
7.0	.990	.985
8.0	.989	.997
9.0	.986	1.014
10.0	.989	1.043
11.0	.987	1.006
12.0	.969	1.047
13.0	.951	1.010
14.0	.687	.667
15.0	.071	.041
16.0	.159	.104
17.0	.169	.097
18.0	.169	.122
19.0	.157	.101
20.0	.185	.143
21.0	.308	.238
22.0	.397	.327
23.0	.390	.313
24.0	.412	.346
25.0	.406	.355
26.0	.622	.575
27.0	.757	.701
28.0	.710	.666
29.0	.788	.730
30.0	.850	.781
31.0	.925	.911
32.0	.877	.894
33.0	.904	.940
34.0	.872	.870
35.0	.921	.947
36.0	.967	1.028
37.0	.970	1.042
38.0	.966	1.035
39.0	.965	1.026
40.0	.986	1.043
41.0	.988	1.054

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....20 (DP1-005)
 DATE OF TRIAL...16 MAY 1978
 FIRE-TIME.....11:48: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.997	1.053
43.0	.993	.999
44.0	.994	1.049
45.0	1.004	1.058
46.0	1.000	1.038
47.0	1.009	1.055
48.0	.996	1.051
49.0	.999	1.038
50.0	.991	1.034
51.0	1.005	1.046
52.0	.993	1.023
53.0	.995	1.041
54.0	.989	1.052
55.0	.989	1.044
56.0	.988	1.073
57.0	.993	1.105
58.0	.994	1.105
59.0	1.000	1.115
60.0	.999	1.116

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....20 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.9	1.011	.000	.10E+01
3.1	1.002	.019	.10E+01
4.2	.999	.024	.10E+01
5.4	.999	.024	.10E+01
6.4	.996	.029	.10E+01
7.6	.999	.024	.10E+01
8.6	.993	.035	.99E+00
9.8	.985	.051	.98E+00
10.9	.982	.056	.98E+00
11.9	.962	.078	.95E+00
12.9	.682	.441	.62E+00
14.4	.029	1.509	.12E-01
15.3	.069	1.419	.35E-01
16.6	.023	1.520	.88E-02
17.5	.072	1.476	.37E-01
19.0	.075	1.517	.39E-01
20.1	.165	1.398	.10E+00
21.2	.257	1.258	.18E+00
22.4	.260	1.269	.18E+00
23.3	.211	1.360	.14E+00
24.4	.502	.835	.42E+00
25.8	.641	.609	.57E+00
26.7	.592	.716	.52E+00
28.0	.641	.640	.57E+00
29.0	.754	.447	.70E+00
30.2	.849	.271	.81E+00
31.4	.840	.303	.80E+00
32.4	.774	.426	.72E+00
33.6	.858	.270	.82E+00
34.8	.962	.093	.95E+00
35.8	.985	.066	.98E+00
37.0	.953	.141	.94E+00
38.2	.970	.093	.96E+00
39.2	.985	.051	.98E+00
40.4	.993	.050	.99E+00
41.6	.991	.087	.99E+00
42.8	.993	.081	.99E+00
44.0	1.005	.044	.10E+01
45.2	.996	.060	.10E+01
46.2	.999	.055	.10E+01
47.6	1.005	.029	.10E+01

TRANSMITTANCE, AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....20 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:48: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
48.7	1.011	.018	.10E+01
49.9	1.005	.060	.10E+01
51.1	.993	.081	.99E+00
52.3	.999	.055	.10E+01
53.3	.999	.055	.10E+01
54.7	.999	.055	.10E+01
55.7	1.011	.018	.10E+01
57.1	.996	.045	.10E+01
58.2	1.011	.034	.10E+01

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 20, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:48:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

2.00	1.021
3.00	1.012
4.10	.993
5.21	1.024
6.42	1.017
7.57	1.027
8.71	.979
9.83	1.000
10.95	.969
12.01	.967
13.04	.466
14.34	.017
15.42	.056
16.64	.010
17.61	.050
18.94	.052
19.94	.145
21.24	.258
22.39	.255
23.53	.202
24.49	.533
25.80	.637
26.80	.581
27.99	.650
29.05	.767
30.15	.883
31.43	.842
32.39	.753
33.67	.836
34.78	.986
35.87	.987
37.04	.975
38.11	.961
39.31	.971
40.46	.951
41.49	.962
42.83	.936
43.89	.961
45.14	.983
46.22	.978

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 20, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:48:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

47.44	.921
48.73	.945
49.90	.984
51.03	1.018
52.12	.976
53.45	1.018
54.52	1.020
55.86	1.044
56.97	1.000
58.22	.977
59.40	.955

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....20 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:48: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	.00000
2.0	.00000
3.0	.00000
4.0	.37527
5.0	.00000
6.0	1.24358
7.0	.36136
8.0	.07556
9.0	.00000
10.0	.00000
11.0	.00000
12.0	.00000
13.0	.00000
14.0	9.89290
15.0	78.0768
16.0	55.27527
17.0	56.93285
18.0	51.33289
19.0	55.79848
20.0	47.43561
21.0	35.03403
22.0	27.29395
23.0	28.33525
24.0	25.88586
25.0	25.26339
26.0	13.48320
27.0	8.66579
28.0	9.91604
29.0	7.66580
30.0	6.01372
31.0	2.26209
32.0	2.72189
33.0	1.51733
34.0	3.40233
35.0	1.32967
36.0	.00000
37.0	.00000
38.0	.00000
39.0	.00000
40.0	.00000
41.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....20 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:48: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	.000000
43.0	.01893
44.0	.000000
45.0	.000000
46.0	.000000
47.0	.000000
48.0	.000000
49.0	.000000
50.0	.000000
51.0	.000000
52.0	.000000
53.0	.000000
54.0	.000000
55.0	.000000
56.0	.000000
57.0	.000000
58.0	.000000
59.0	.000000
60.0	.000000

VOLUME 2, SECTION 23

CONTENTS

TRIAL DPI-005-T21 (DUST) 17 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTHS 3.443 AND 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TABLE: CALCULATED CL VALUES

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....21 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:54: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
1.0	1.005	
2.0	1.007	1.045
3.0	.990	1.121
4.0	1.021	1.021
5.0	1.003	1.129
6.0	1.005	1.113
7.0	1.000	1.113
8.0	1.002	1.113
9.0	.997	1.113
10.0	.990	1.113
11.0	.977	1.020
12.0	.981	1.014
13.0	.970	1.081
14.0	.971	1.008
15.0	.914	.934
16.0	.566	.553
17.0	.452	.420
18.0	.231	.167
19.0	.177	.128
20.0	.119	.073
21.0	.148	.089
22.0	.123	.063
23.0	.051	.022
24.0	.023	.038
25.0	.027	.065
26.0	.068	.035
27.0	.069	.034
28.0	.108	.035
29.0	.121	.081
30.0	.038	.020
31.0	.077	.038
32.0	.095	.044
33.0	.111	.062
34.0	.169	.092
35.0	.293	.209
36.0	.255	.193
37.0	.315	.236
38.0	.263	.189
39.0	.240	.178
40.0	.216	.155
41.0	.151	.099

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....21 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:54: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
42.0	.157	.108
43.0	.166	.121
44.0	.231	.177
45.0	.240	.201
46.0	.237	.178
47.0	.398	.388
48.0	.583	.617
49.0	.669	.733
50.0	.610	.636
51.0	.744	.786
52.0	.750	.773
53.0	.741	.780
54.0	.819	.885
55.0	.795	.900
56.0	.857	.978
57.0	.857	.987
58.0	.906	1.025
59.0	.866	.958
60.0	.901	1.023
61.0	.927	1.076
62.0	.932	1.095
63.0	.930	1.009
64.0	.943	.887
65.0	.963	1.119
66.0	.961	1.100
67.0	.966	.984
68.0	.971	1.054
69.0	.971	1.006
70.0	.976	1.007
71.0	.990	.942
72.0	.982	1.062
73.0	.976	1.075
74.0	.976	.955
75.0	.998	1.085
76.0	.982	1.084
77.0	.981	1.083
78.0	.986	1.073
79.0	.973	1.098
80.0	.975	1.112
81.0	.982	1.085
82.0	.970	1.089

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....21 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....11:54: 0
 TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750	WAVE-LENGTH 3.443
83.0	.974	1.066
84.0	.971	1.087
85.0	.969	1.040
86.0	.974	1.068
87.0	.973	.999
88.0	.980	1.030
89.0	.975	1.025

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....21 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:54: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.8	.993	.025	.99E+00
3.2	.988	.038	.98E+00
4.2	.988	.038	.98E+00
5.4	.988	.038	.98E+00
6.6	.002	.022	.10E+01
7.8	.996	.050	.99E+00
9.0	.993	.041	.99E+00
10.2	.993	.025	.99E+00
11.3	.976	.063	.97E+00
12.5	.988	.038	.98E+00
13.7	.936	.166	.91E+00
14.7	.431	1.227	.32E+00
15.7	.223	1.622	.13E+00
17.1	.086	1.891	.34E-01
18.2	.094	1.856	.39E-01
19.8	.054	1.881	.18E-01
20.8	.037	1.856	.11E-01
21.9	.009	1.935	.15E-02
23.6	.003	1.978	.35E-03
24.6	.009	1.997	.15E-02
25.6	.011	2.022	.22E-02
27.1	.037	1.935	.11E-01
27.8	.049	1.847	.16E-01
29.4	.009	1.903	.15E-02
30.7	.017	1.932	.38E-02
32.0	.037	1.950	.11E-01
33.2	.066	1.950	.24E-01
34.2	.137	1.825	.66E-01
35.5	.177	1.753	.93E-01
36.4	.171	1.734	.89E-01
37.9	.080	1.888	.31E-01
38.8	.086	1.859	.34E-01
39.8	.046	1.947	.15E-01
41.4	.034	1.988	.98E-02
42.6	.057	1.969	.20E-01
43.6	.100	1.906	.43E-01
44.6	.108	1.903	.48E-01
46.0	.223	1.668	.13E+00
47.2	.360	1.399	.25E+00
48.4	.551	1.011	.44E+00
49.8	.545	1.039	.44E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....21 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:54: 0
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
50.9	.639	.864	.54E+00
52.1	.654	.848	.56E+00
53.3	.734	.689	.65E+00
54.4	.745	.664	.67E+00
55.6	.742	.686	.66E+00
56.8	.839	.473	.79E+00
58.0	.785	.592	.72E+00
59.1	.834	.501	.78E+00
60.3	.902	.366	.87E+00
61.3	.902	.351	.87E+00
62.5	.928	.294	.90E+00
63.7	.931	.319	.91E+00
64.9	.954	.285	.94E+00
66.1	.996	.175	.99E+00
67.2	.968	.238	.96E+00
68.5	.991	.188	.99E+00
69.6	.971	.247	.96E+00
71.0	.979	.229	.97E+00
72.2	.988	.226	.98E+00
73.4	.996	.207	.99E+00
74.6	.985	.232	.98E+00
75.6	.973	.272	.96E+00
77.0	.993	.213	.99E+00
78.2	.971	.263	.96E+00
79.4	.991	.219	.99E+00
80.6	.973	.288	.96E+00
81.8	.985	.263	.98E+00
83.0	.993	.244	.99E+00
84.0	.988	.272	.98E+00
85.2	.993	.260	.99E+00
86.3	.979	.260	.97E+00
87.5	.979	.260	.97E+00
88.8	.971	.279	.96E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 21, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:54:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

2.02	.923
3.20	.929
4.36	.888
5.40	1.021
6.60	1.010
7.78	1.003
8.92	.988
10.22	.994
11.37	.990
12.45	1.008
13.76	.940
14.80	.354
16.02	.149
17.38	.075
18.47	.070
19.84	.044
20.84	.034
22.04	.010
23.37	.010
24.64	.010
25.69	.010
27.10	.031
28.25	.011
29.51	.010
30.74	.010
31.96	.018
33.18	.056
34.24	.132
35.54	.182
36.59	.187
37.91	.065
38.94	.054
40.14	.018
41.51	.024
42.67	.052
43.65	.087
44.81	.083
46.14	.210
47.18	.349
48.39	.532

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 21, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 11:54:00

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

49.76	.522
50.96	.625
52.07	.614
53.32	.744
54.48	.739
55.65	.739
56.65	.828
57.81	.814
59.11	.836
60.14	.896
61.28	.889
62.44	.954
63.61	.968
64.79	.986
65.96	1.010
67.27	.995
68.48	.981
69.54	1.008
70.91	1.036
72.15	.998
73.21	1.018
74.43	1.010
75.80	1.021
77.04	1.004
78.29	1.019
79.47	1.029
80.62	1.004
81.81	1.006
83.04	.987
84.17	.980
85.16	1.013
86.26	.988
87.45	.999
88.68	.978

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....21 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:54: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

1.0	
2.0	.000000
3.0	.000000
4.0	.000000
5.0	.000000
6.0	.000000
7.0	.000000
8.0	.000000
9.0	.000000
10.0	.000000
11.0	.000000
12.0	.000000
13.0	.000000
14.0	.000000
15.0	1.67130
16.0	14.44680
17.0	21.18453
18.0	43.66868
19.0	50.13613
20.0	63.77929
21.0	58.95427
22.0	67.28372
23.0	92.96989
24.0	79.83054
25.0	66.52020
26.0	81.90318
27.0	82.37181
28.0	81.75815
29.0	61.35927
30.0	96.00401
31.0	79.71655
32.0	75.91643
33.0	67.91071
34.0	58.30315
35.0	38.13185
36.0	40.16076
37.0	35.24277
38.0	40.62012
39.0	42.13248
40.0	45.48382
41.0	56.44798

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....21 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:54: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

42.0	54.37834
43.0	51.57481
44.0	42.30184
45.0	39.11565
46.0	42.12167
47.0	23.09358
48.0	11.76442
49.0	7.58137
50.0	11.03706
51.0	5.87293
52.0	6.28042
53.0	6.06690
54.0	2.98416
55.0	2.57553
56.0	.54599
57.0	.30839
58.0	.00000
59.0	1.03425
60.0	.00000
61.0	.00000
62.0	.00000
63.0	.00000
64.0	2.93365
65.0	.00000
66.0	.00000
67.0	.39711
68.0	.00000
69.0	.00000
70.0	.00000
71.0	1.44744
72.0	.00000
73.0	.00000
74.0	1.11149
75.0	.00000
76.0	.00000
77.0	.00000
78.0	.00000
79.0	.00000
80.0	.00000
81.0	.00000
82.0	.00000

CL VALUES (GM/M**2) BACK CALCULATED USING TRANSMITTANCE
AND EXTINCTION COEFFICIENT

TRIAL NUMBER....21 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....11:54: 0
TYPE OF SMOKE...DUST

SECONDS
FROM
FIRE-TIME

83.0	.00000
84.0	.00000
85.0	.00000
86.0	.00000
87.0	.02684
88.0	.00000
89.0	.00000

VOLUME 2, SECTION 24

CONTENTS

TRIAL DPI-005-T22 (DUST) 17 MAY 1978

TABLE: TRANSMITTANCE FOR WAVELENGTH 9.750 μm

TABLE: TRANSMITTANCE FOR WAVELENGTH 1.06 μm , CLOUD LUMINANCE AT 1.06 μm AND CALCULATED TRANSMITTANCE 0.4-0.7 μm BY TIME

TABLE: TRANSMITTANCE FOR WAVELENGTH BETWEEN 0.4 AND 0.7 μm

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER...22 (DP1-005)
 DATE OF TRIAL...17 MAY 1978
 FIRE-TIME.....12: 3: 1
 TYPE OF SMOKE...DUST

SECONDS
 FROM
 FIRE-TIME

WAVE-LENGTH
 9.750

1.0	.987
2.0	1.001
3.0	.992
4.0	.987
5.0	.988
6.0	.989
7.0	.989
8.0	.987
9.0	.927
10.0	.983
11.0	.973
12.0	.969
13.0	.964
14.0	.968
15.0	.966
16.0	.926
17.0	.700
18.0	.223
19.0	.050
20.0	.057
21.0	.038
22.0	.049
23.0	.060
24.0	.065
25.0	.075
26.0	.100
27.0	.056
28.0	.020
29.0	.026
30.0	.015
31.0	.023
32.0	.046
33.0	.033
34.0	.054
35.0	.083
36.0	.142
37.0	.248
38.0	.318
39.0	.360
40.0	.518
41.0	.588

TRANSMITTANCE FOR INDICATED WAVELENGTH

TRIAL NUMBER....22 (DP1-005)

DATE OF TRIAL...17 MAY 1978

FIRE-TIME.....12: 3: 1

TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	WAVE-LENGTH 9.750
------------------------------	----------------------

42.0	.597
43.0	.744
44.0	.748
45.0	.810
46.0	.874
47.0	.865
48.0	.900
49.0	.921
50.0	.929
51.0	.945
52.0	.965
53.0	.955
54.0	.954
55.0	.948
56.0	.947
57.0	.971
58.0	.953
59.0	.991
60.0	.969
61.0	.970
62.0	.979
63.0	.976
64.0	.989
65.0	.976
66.0	.971
67.0	.965
68.0	.968
69.0	.969
70.0	.974
71.0	.981
72.0	.971
73.0	.968

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....22 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....12: 3: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
1.6	1.017	.000	.10E+01
2.6	1.006	.000	.10E+01
3.8	1.003	.000	.10E+01
5.0	.998	.000	.10E+01
6.2	.998	.000	.10E+01
7.4	.989	.000	.99E+00
8.6	.998	.000	.10E+01
9.8	.972	.057	.97E+00
11.0	.981	.034	.98E+00
12.2	.983	.026	.98E+00
13.4	.966	.056	.97E+00
14.5	.952	.064	.95E+00
15.6	.731	.541	.72E+00
16.6	.139	1.919	.13E+00
17.8	.003	2.148	.25E-02
19.2	.011	2.157	.97E-02
20.5	.009	2.212	.72E-02
21.3	.009	2.227	.72E-02
22.8	.011	2.157	.97E-02
23.5	.009	2.071	.72E-02
25.1	.020	1.993	.17E-01
25.9	.009	1.993	.72E-02
27.6	.009	2.024	.72E-02
28.7	.009	2.118	.72E-02
29.9	.011	2.204	.97E-02
30.9	.011	2.313	.97E-02
32.0	.006	2.391	.47E-02
33.2	.006	2.422	.47E-02
34.3	.014	2.415	.12E-01
35.4	.040	2.361	.35E-01
36.6	.105	2.199	.97E-01
37.8	.128	2.138	.12E+00
39.0	.349	1.551	.34E+00
40.2	.504	1.158	.49E+00
41.3	.388	1.474	.38E+00
42.5	.564	1.012	.55E+00
43.7	.680	.711	.67E+00
44.7	.740	.564	.73E+00
45.9	.740	.580	.73E+00
46.9	.861	.248	.86E+00
48.1	.913	.125	.91E+00

TRANSMITTANCE AND CLOUD LUMINANCE FOR
WAVELENGTH 1.060

TRIAL NUMBER....22 (DP1-005)
DATE OF TRIAL...17 MAY 1978
FIRE-TIME.....12: 3: 1
TYPE OF SMOKE...DUST

SECONDS FROM FIRE-TIME	TRANSMITTANCE (1.060)	CLOUD LUMINANCE MICROWATTS/CM**2/SR/NM	CALCULATED TRANSMITTANCE (0.4-0.7)
49.1	.904	.132	.90E+00
50.2	.941	.032	.94E+00
51.4	.947	.032	.94E+00
52.6	.961	.009	.96E+00
53.6	.941	.048	.94E+00
54.8	.966	.000	.97E+00
55.9	.989	.000	.99E+00
56.9	.975	.000	.97E+00
58.1	.995	.000	.99E+00
59.3	.975	.000	.97E+00
60.3	.983	.000	.98E+00
61.5	.978	.000	.98E+00
62.5	.983	.000	.98E+00
63.7	.995	.000	.99E+00
64.9	.981	.000	.98E+00
66.1	.978	.000	.98E+00
67.1	.981	.000	.98E+00
68.3	.978	.000	.98E+00
69.3	1.003	.000	.10E+01
70.4	.989	.000	.99E+00
71.6	.983	.000	.98E+00
72.5	.986	.000	.99E+00

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 22, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 12:03:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

1.43	.994
2.72	1.015
3.75	.996
4.92	.995
6.13	1.002
7.31	.985
8.54	.973
9.90	.985
10.90	.983
12.15	.984
13.43	.988
14.45	.980
15.71	.685
16.85	.067
18.19	.010
19.28	.010
20.52	.010
21.57	.010
22.82	.010
24.00	.010
25.19	.014
26.19	.010
27.47	.010
28.50	.010
29.76	.010
30.90	.010
32.04	.010
33.16	.010
34.12	.010
35.44	.029
36.61	.081
37.79	.121
38.98	.348
40.17	.536
41.36	.382
42.53	.558
43.69	.701
44.64	.761
45.90	.711
47.00	.845

TRANSMITTANCE FOR WAVE LENGTH BETWEEN 0.4 AND 0.7 MICRONS

TRIAL 22, FT. SILL TESTS

DATE: 17 MAY 1978

SMOKE: DT

FUNCTION TIME 12:03:01

TIME AFTER FUNCTION
(SECONDS)

TRANSMITTANCE
(0.4-0.7)

48.12	.894
49.27	.916
50.32	.939
51.52	.911
52.67	.921
53.73	.916
54.78	.979
55.91	.980
57.06	.991
58.03	.982
59.15	.980
60.44	.978
61.39	.973
62.69	.972
63.73	.960
64.85	.987
66.10	.972
67.09	.990
68.36	.979
69.40	.985
70.46	.971
71.49	.935
72.60	.976